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THE JOURNAL OF ECONOMIC HISTORY

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Some French Contributions to the Industrial Development of Germany, 1840–1870 *

I

Germany in the 1830's gave few if any indications of its great industrial potentialities.[1] The population was overwhelmingly rural and agrarian; Berlin was the only city containing more than 100,000 inhabitants, and the great majority of "cities" (in the legal sense) numbered less than 10,000. Nonagricultural production was carried on for the most part in the home or in small shops employing the old handicraft techniques. The pattern of foreign trade was that which has since come to be associated with "underdeveloped" agrarian nations: exports of agricultural products (grain, wool) and the output of artisanal industries, imports of manufactured goods and exotic wares. In those industries that were to lead the way in Germany's industrialization there were as yet no signs of growth. The few spinning factories that were set up in the 1820's and 1830's employed mainly English and Alsatian machinery, and sometimes foreign capital as well. Coal production lagged behind that of tiny Belgium, and was no greater than that of mineral-poor France. The small, dispersed iron industry was still almost universally conducted with the ancient charcoal technique, and the famed chemical industry was still to be born. The Zollverein was just beginning its great work of economic unification; the effective realization of its promise had to await more adequate means of transportation and financial institutions to provide capital;

* The research on which this article is based was made possible by grants from the John Simon Guggenheim Memorial Foundation and the University of Wisconsin. Thanks are also due Mr. Klaus Lehnardt of the University of Marburg for assistance in deciphering nineteenth-century German manuscripts.

1 For economic conditions generally, see Werner Sombart, *Die deutsche Volkswirtschaft im neunzehnten Jahrhundert* (Berlin, 1919) and A. Sartorius von Waltershausen, *Deutsche Wirtschaftsgeschichte, 1815–1914* (Jena, 1923); on German industrialization, Pierre Bénaerts, *Les origines de la grande industrie allemande* (Paris, 1933); on the Zollverein, W. O. Henderson, *The Zollverein* (London, 1939). Much basic research remains to be done on nineteenth-century German economic history.

but by 1840 there were only a few short, isolated lines of railway and no modern credit facilities.

France, by contrast, was a relatively developed nation. To be sure, the differences were by no means so great as between modern industrial nations and contemporary "backward" areas, but they were significant. More than two thirds of French imports were classed as "materials required by industry," while less than 10 per cent were manufactured consumers' goods.[2] Nearly three fourths of French exports were manufactured; exports of cloth alone—silk, cotton, woolens, and linen—accounted for almost half the total. France also exported large quantities of pottery, glassware, crystal, paper, and paper products. The output of the French iron industry—also carried on mainly with charcoal until the 1850's—far surpassed that of Germany, and maintained a substantial if declining lead almost to the eve of the Franco-Prussian War. The coal industry was small relative to England's, but still on a par with Germany's until 1850, while coal consumption was much greater in France than in Germany. Roads and waterways were better, although in the provision of railways France actually lagged slightly behind. French financial institutions were somewhat more highly developed, but still far from adequate for an economy on the verge of rapid expansion.

France contributed to the economic development of Europe, including Germany, through three channels: (1) intellectual and legal influences; (2) investment of capital; (3) diffusion of technology.

Previous accounts of French contributions to European culture and economic development have stressed the first of these.[3] Here one must begin at least as far back as the Enlightenment; the Revolution and the Napoleonic domination occupy a prominent place. The use of French as the diplomatic language had repercussions in business correspondence as well; the Revolutionary doctrine of the liberty of commerce and freedom of occupation spread throughout Germany; the Napoleonic commercial code was adopted in many areas, bringing with it the *société par actions;* chambers of commerce on the French model were established in several cities. In the nineteenth century the franc

[2] Max E. Fletcher, "French Foreign Trade, 1815–1914," an unpublished seminar paper. Comparable figures for Germany in the same period are not available, but studies of another of my former students, Mr. John A. Radcliffe, indicate that the proportions were almost the reverse.

The latest study of this period in France, with numerous bibliographical indications, is A. L. Dunham, *The Industrial Revolution in France, 1815–1848* (New York, 1955). But the remark of the previous note applies to France as well.

[3] Cf. Bénaerts, *Industrie allemande,* pp. 334–39.

circulated as legal tender in the Rhineland until 1867; both the German Economic Congress of 1867 and the German Trades Congress of 1868 voted for adhesion to the French standard.

As for the second of these channels, French foreign investments previous to 1870 exceeded twelve billion gold francs (they may have run as high as fifteen or twenty billion),[4] placing France second only to Britain as an exporter of capital. Although French investments in Germany were small relative to those made in, say, Italy, Spain, or the Austrian Empire, they were, for reasons to be discussed, of unusual efficacy in promoting industrial development.

Of the three channels of influence listed above, the one that is usually most important is the diffusion of technology.[5] At the Crystal Palace Exhibition of 1851, the London correspondent of the *Allgemeine Zeitung* lamented the imitativeness of German industry with the observation that "here one beholds the supporting hand of France, there that of England."[6] The Jacquard loom was introduced into Germany at Krefeld, and soon made that city an important competitor of Lyon. Alsation spinning machinery and woolen machines of French invention helped the German cotton and woolen industries to get a start.[7] French mining engineers and foundry masters swarmed over the Rhineland in the middle decades of the nineteenth century, penetrating even to Silesia, and revitalized the ancient German mining and metallurgical industries. The prototype of the famed German banking system was modeled directly upon the French Crédit Mobilier, the most famous banking institution of its day.[8]

[4] See my doctoral dissertation, *French Foreign Investment, 1850–1880* (Chicago, 1952) available on microfilm from the University of Chicago Libraries. The gold franc, equivalent to approximately .20 pre-1914 dollars, is used throughout this article as the basic currency unit.

[5] The literature on diffusion is abundant. For a general introduction, see almost any good anthropology text: e.g., A. L. Kroeber, *Anthropology* (rev. ed.; New York, 1948). For a pertinent discussion and examples in the history of France and Europe, see Warren C. Scoville, "Minority Migrations and the Diffusion of Technology," THE JOURNAL OF ECONOMIC HISTORY, XI (1951), 347–60, and "The Huguenots and the Diffusion of Technology," *Journal of Political Economy*, LX (1952), 294–311, 392–411. See also below, p. 313.

[6] *Economist*, 28 June 1851, cited by J. H. Clapham, *An Economic History of Modern Britain* (3 vols.; London, 1926–39), II, 20.

[7] Bénaerts, *Industrie allemande*, pp. 363–65; W. O. Henderson, *Britain and Industrial Europe, 1750–1870* (Liverpool, 1954), p. 142. Not only machinery was involved; it was said that the Alsatian Nicholas Koechlin was the largest taxpayer in the state of Baden in the 1820's on account of his textile mills there.

[8] See my article, "Founding the Bank of Darmstadt," *Explorations in Entrepreneurial History*, VIII (February 1956). On the Crédit Mobilier, J. Plenge, *Gründung und Geschichte des Crédit Mobilier* (Leipzig, 1904); also my article, "The Crédit Mobilier and the Economic Development of Europe," *Journal of Political Economy*, LXI (1953), 461–88, although it is in error with respect to the Bank of Darmstadt.

Intellectual traditions and legal institutions, when transplanted to a new environment, sometimes lead to bizarre results quite different from those they produce in the country of origin. Foreign investment is important mainly as a vehicle for men, machines, and techniques; capital that goes abroad unaccompanied, as in the case of loans to foreign governments, is frequently barren. Even technology, when transmitted directly to populations unfamiliar with its use or purpose, as in the case of some present-day technical-assistance programs, does not always bear the expected fruit. But when the investors, engineers, and business executives of a relatively advanced area combine their talents and resources in a single organization located in a relatively underdeveloped area, there results a combination of these forces more potent than any of the three taken singly, and one that is almost certain to produce results. Moreover, when combined, they give rise to what might be considered a fourth force for economic development, the spirit of enterprise. It was in this manner that France made its contributions to the industrial and economic development of Germany.

II

Among the greatest of these contributions were those made in the nonferrous-metals industries. The ores of zinc, lead, copper, and silver abounded in Germany, especially in the Rhineland and Silesia. In the early nineteenth century some of these deposits were worked sporadically and on a small scale, but the Germany of that time lacked both the engineering skill and the venture capital to develop them fully. In France, on the other hand, the demand for these metals was increasing rapidly as a result of new uses that had been found for them; France possessed both the technical proficiency and requisite capital, but lacked the necessary raw materials.[9] The initial impulse for French investment in German minerals was, therefore, the desire to supply the French market, and the men who made these investments were generally either metal manufacturers or traders.

Such, for example, were Ernest David and Jean François Laveissière of Paris. In company with Baron F. A. Seillière, a Paris investment banker, and a Cologne firm, they founded the Alliance Mining and Foundry Company and the Holzappel Lead and Silver Mining Com-

[9] For example, in the 1840's the average annual consumption of copper was approximately 10,000 tons, of which only 100 tons was produced domestically. See *Journal des chemins de fer* [cited hereafter as *JCF*], VII (1848), 412.

pany [10]—the latter with concessions purchased from the Archduke Stephen of Austria and the Grand Duke of Oldenburg. In addition, with fellow stockholders, officers, and directors of the giant of the European zinc industry, Vieille Montagne, David and Laveissière participated as founders of the Rhenish Prussian Zinc Company and the Rhine Copper Company. [11] With Charles Gosselin (who was active in the German iron industry as well) and other French interests, they founded the Eschweiler Mining and Foundry Company, which they merged in 1873 with the Holzappel Company to form the Rhine-Nassau Mining and Foundry Company. Laveissière also had extensive mining interests in Belgium.

One of the largest and most important firms in the German lead and zinc industry was—and is—the Stolberg and Westphalian Mining, Lead, and Zinc Manufacturing Company. Its history is doubly interesting in that it clearly demonstrates how a firm that was initially founded to supply the French market took advantage of the opportunities for expansion that its location offered.

The setting for the story is an appropriate one. Stolberg, near Aachen, was at one time a part of one of Charlemagne's hunting forests. The town itself became important after the Revocation of the Edict of Nantes, when Huguenots were induced to set up factories there as models for the indigenous population. And it was a descendant of this early emigration, Barthold Suermondt, [12] an Aachen banker and philanthropist, who was instrumental in bringing another wave of French enterprise to Germany. Suermondt had formed a company in 1837 or 1838 for the exploitation of calamine (zinc ore) deposits in the vicinity of Stolberg. The company was not, however, notably successful, and in fact was scarcely able to get its product in a marketable state owing to the lack of a qualified engineer. In 1840, therefore, it leased its entire establishment to Henri Bernard, Marquis de Sassenay, a French manufacturer of zinc sheets and roofing material. [13]

It is evident from the lease contract that Sassenay's original purpose

[10] For details on these and other companies mentioned in the text, see the Appendix at the end of the article.

[11] See below, pp. 292, 294–95.

[12] Suermondt was actually a descendant of Huguenots who settled in Holland. He was born in Utrecht in 1818, but migrated to Aachen while still a youth.

[13] Contract between Marquis de Sassenay and the Société Metallurgique de Stolberg, Aix-la-Chapelle (Aachen), 30 December 1840, Hausarchiv, Sal. Oppenheim Jr. et Cie., Cologne (hereafter abbreviated as Opp. Hausarchiv). Permission to consult these and other documents in the invaluable archives of this bank was graciously given by Herr Alex von Frankenberg-Ludwigsdorf.

in undertaking the operation of the Stolberg works was to insure a steady supply of crude zinc for his mills near Gisors, in the department of Eure. He was expressly forbidden by the contract to engage in the sale of either crude or finished zinc anywhere in the Zollverein, except for a predetermined amount that he was to deliver to Suermondt's company at a fixed price.[14] (A portion of the latter was to be sheets produced by the "system . . . of Thierceville"—the site of Sassenay's factory in France.) The remaining output of the mines and smelters was exported to France for use in Sassenay's finishing mills.

To carry out the obligations imposed upon him by the lease, Sassenay obtained backing from Jacques Laffitte, one of the notable financiers of the time and a pioneer in the field of investment banking.[15] A *société en commandite* was formed under French law with an authorized capital of 600,000 francs, although only one fourth of this amount was initially paid up. In addition to Sassenay and Laffitte, the founders included Adolphe Lebaudy, one of Laffitte's associates in the Caisse Générale pour le Commerce et l'Industrie, and two Paris metal traders, J. P. Roussac and J. J. Chauviteau.[16]

Sassenay succeeded in putting the establishment at Stolberg in working order. The effective capital was doubled (to 300,000 francs) within the first year, and at the end of a year and a half it became necessary to raise the capital again in order "to extend the operations as foreseen in the (constitutive) act of the company, by augmenting the number of furnaces employed in the manufacture of zinc."[17] The capital was accordingly raised to 1,000,000 francs, and, in addition to constructing new furnaces, the company purchased a coal mine to insure a steady supply of fuel at reasonable cost.

Thanks to these improvements and the buoyant market for zinc—the price of raw zinc rose from 420 francs per ton in 1837 to 820 francs in 1842—the company continued to prosper and expand. In 1845 it acquired outright the properties of Suermondt's company, which allowed it to engage in sales throughout the Zollverein, and at the same time purchased controlling interests in the mining concessions "Diepenlichen" and "Heidgen," with a total area of more than 25,000 acres.[18] The properties of the company at this time, comprising the

[14] *Ibid.*, Arts. 10, 11, and 16.

[15] See Fritz Redlich, "Jacques Laffitte and the Beginnings of Investment Banking in France," *Bulletin of the Business Historical Society*, XXII (December 1948).

[16] Opp. Hausarchiv, Société des Mines et Fonderies de Zinc de Stolberg, de Sassenay et Cie, Foundation Act and Statutes, Paris, 8 April 1841.

[17] Minutes of the general assembly of stockholders, 14 November 1842, Opp. Hausarchiv.

[18] *Ibid.*, 6 May 1845.

mining concessions and mine sites, the coal mine, fifty-eight furnaces, and the necessary buildings, workshops, rolling mills, etc., were valued at 8,300,000 francs, although their original cost was but slightly in excess of 3,000,000.[19]

The associates made two important decisions at this juncture. They converted the business into a Prussian limited-liability company and invited a Cologne banking house, Sal. Oppenheim Jr. & Cie, to participate in what had previously been a wholly French enterprise.[20] (Oppenheim's had served as broker in the purchase of the mining concessions, and further "services" were required in getting authorization from the Prussian government for incorporation.)

The official name given to the enlarged enterprise was Anonym Gesellschaft für Bergbau und Zinkfabrikation zu Stolberg. The capital of 2,000,000 thalers (7,500,000 francs) was divided in ten thousand shares of 200 thalers (750 francs) each. The owners of the former company took eight thousand shares in exchange for their *apports;* the remaining shares, intended to provide working capital, were provisionally subscribed by the founders, but they allowed Simon Oppenheim to distribute up to twelve hundred of these shares at par "to persons in Germany whose co-operation could be useful to the company," and to represent himself to the Prussian government as the owner of the remaining eight hundred.[21]

As the company was definitively organized, seventeen French stockholders owned two thirds of the stock; five Prussians held the remainder (Oppenheim's alone accounted for more than three thousand shares). In spite of the preponderant French ownership, the board of directors was weighted on the Prussian side as a concession to the government in order to obtain a charter. Nevertheless, Sassenay, who appears to have been the key figure in all operations, remained as general manager (with a voice in the deliberations of the directors) and, in fact, was named in the statutes as holding that office for ten years, subject to removal only by the full assembly of stockholders.[22] Similar treatment was accorded to Aubin de Jaurias, the French engineer in charge of mining and smelting operations.[23]

The reorganized company began operations as such on January 1, 1846, producing lead, iron, and lignite as well as zinc and coal. Its

[19] *Ibid.*, 15 May 1845.
[20] *Ibid.*, 6 May 1845.
[21] *Ibid.*, 15 May 1845.
[22] Statutes, Art. 31, Opp. Hausarchiv.
[23] *Ibid.*, Art. 34.

future appeared to be assured, but in common with all of European industry, it was severely shaken by the crisis of 1848. The price of crude zinc dropped from 610 francs per ton in 1846 to 300 francs in 1848. Stolberg, following the then customary practice of including the value of finished inventories in profits, saw apparently substantial profits turn into large real losses. Moreover, Gouin et Cie, the company's French bank (Alexandre Gouin, a former minister of commerce, had replaced Laffitte, who died in 1844), failed owing to frozen assets—a large block of them in Stolberg. Finally, a stockholders' rebellion in 1849 shook up the old board of directors.[24]

The new board that took over the affairs of Stolberg in 1852 was headed by André Koechlin of the famous family of Alsatian industrialists. Through his relations with the Oppenheim bank, Koechlin played a highly important role in the German Gründerzeit of the 1850's, not only in the lead and zinc industry, but in iron, coal, and glass as well. His motive appears to have been primarily the desire for promotional profits—which were, in fact, substantial; in the pursuit of this aim he left Germany with at least three new or greatly enlarged industrial undertakings in the year 1853.

Under Koechlin's leadership the Stolberg company doubled its capital (to 15,000,000 francs) and used one half of the newly created shares to purchase the assets of the Rhenish-Westphalian Mining Union, consisting principally of lead mines and mining concessions in the vicinity of Ramsbeck.[25] Stolberg, which had produced 4,000 tons of lead in 1853, thereby became Europe's largest producer of this metal. Its production in the first four months of 1854 was at an annual rate of 9,000 tons, and with the new facilities then under construction it expected to have a capacity of 15,000 tons.[26] In order to call attention to its new importance, the name was changed to the Stolberg and Westphalian Mining, Lead, and Zinc Manufacturing Company.

The price paid for the Westphalian property was far in excess of its true worth, however.[27] The company took over, along with the assets, debts amounting to more than half the purchase price, and the exploita-

[24] *JCF*, VIII (1849), 38, 422.

[25] Purchase contract, 11 August 1853, Opp. Hausarchiv. The Westphalian company was a Franco-Belgian enterprise; its chairman was Victor Simon, general manager of the Société de la Nouvelle Montagne.

[26] *JCF*, XII (1853), 647; XIII (1854), 346.

[27] It is probable that Koechlin and his associates owned stock in the Westphalian company before the merger. At any rate, he, Sassenay, and the entire board of directors were subsequently forced to resign from Stolberg and were even sued in a legal action, although nothing came of it. *L'industrie* (Paris), VII (1858), 319.

tion of the new plant required large outlays for new construction, re-equipment, and modernization. Moreover, a large part of the newly authorized shares intended to finance the construction program could not be issued owing to a sudden depreciation in their market value in 1854. By the end of the year the company was on the verge of bankruptcy.

In the spring of 1855 an unofficial committee of Paris stockholders called several meetings to discuss the "gravely compromised" affairs of the company.[28] To get the necessary cash to keep the company going, the capital was again doubled by the issue of forty thousand shares of preferred stock; a Brussels bank with Paris offices, Bischoffsheim-Goldschmidt et Cie, stepped in to take that part of the new issue which was not subscribed by the existing stockholders.[29] A new board of directors elected at the special assembly of June 16, 1855, consisted of six Frenchmen (the leading members of the unofficial Paris committee), three Belgians connected with the Bischoffsheim bank, and four Prussians.[30] The replacement of Sassenay, the general manager and original architect of the firm, was more difficult. The job was first offered to another Frenchman, who turned it down; eventually it was taken by Wilhelm von der Heydt, a relative of one of the new directors.[31] Definitive ratification of the new state of affairs had to await the approval of the Prussian minister of commerce; but little difficulty was experienced in this, inasmuch as that official was August von der Heydt, brother of one of the directors and cousin of the new general manager.[32]

Thus the company that began in 1841 with a capital of 150,000 francs as the supplier of a small French zinc mill had become by 1855 Europe's largest producer of lead (with an important share of the zinc market as well), with the then enormous capital of 30,000,000 francs. It is true that the latter sum represented a substantial overcapitalization; for a number of years no dividends were paid on common stock, but these were resumed at a modest figure in the 1860's, and amortization of the

[28] *Ibid.*, IV (1855), 262, 405.

[29] *Ibid.*, IV (1855), 405, 525. Earlier, Bischoffsheim-Goldschmidt had advanced funds to tide the company over for a few months. (Contract of 11 November 1854, Opp. Hausarchiv.)

[30] A. de Rainneville, Vincent Cibiel, Abel Laurent, Charles Le Lasseur, and Léopold Lehon, all of Paris; Edouard de Roncy, Amiens; J. R. Bischoffsheim, Ernest Brugmann, and L. Dupré, Brussels; Charles von der Heydt, Elberfeld; Wilhelm Hamacher, Dortmund; G. Bergenthal, Wantein; and Th. Nellesen, Aachen. *L'industrie*, IV (1855), 525, 558; *JCF*, XIV (1855), 560.

[31] *JCF*, XIV (1855), 464, 560.

[32] *L'industrie*, IV (1855), 525, 814.

preferred stock was begun in 1869.[33] Meanwhile, after the depression of 1857–1858 the company resumed its program of expansion. To its establishments at Stolberg and Ramsbeck it added another at Dortmund, in the heart of the Ruhr, and participated as founder and shareholder in the railway from Kassel to Düsseldorf and Cologne.[34]

In 1860 the Prussian government required that a majority of the directors, including the president and vice-president, be Prussian citizens; and in 1870, on the eve of the Franco-Prussian War, the shares of the company were introduced on the Berlin Exchange. But the majority of shares continued to be owned in Paris—such a large majority that the company temporarily suspended all dividend payments during the siege of Paris in 1870.[35] The subsequent history of the company has been one of continued expansion. It survived both world wars of the twentieth century, and was again paying handsome dividends as it commenced its second hundred years in the mid-twentieth century.

III

An event of greater immediate significance for the nonferrous-metals industries than the creation of the Stolberg and Westphalian Company was the full-scale invasion of Germany launched in 1853 by the Société de la Vieille-Montagne.

Vieille Montagne ("old mountain"), a Franco-Belgian enterprise,[36] was in effect the creator of the zinc industry in Europe. It was established in 1837 to work the calamine deposits at Moresnet, in the neutral corner between Belgium and Prussia, when the zinc industry was scarcely more than a hope in the hearts of its founders.[37] Continuous

[33] Annual report, 26 May 1869, *JCF*, XVIII (1869), 451.

[34] *Ibid.*, 19 May 1864.

[35] *JCF*, XXIX, 635 (8 October 1870).

[36] The legal seat of the company was in Liège, and some of the directors were Belgian; but in the 1840's and 1850's more than 85 per cent of the stock was held in France, and a majority of its directors also lived there. (Archives of Vieille Montagne [hereafter cited as *VM*], minutes of the annual meeting, 24 April 1843.) Special acknowledgments are due Monsieur J. Veillesse for his kindness in facilitating my research.

[37] Vieille Montagne *(Oudenbergh)* received its name in a concession dating from the fifteenth century. Before the nineteenth century the calamine ore was smelted jointly with copper to obtain brass, but it was impossible to obtain zinc itself, in isolation, until the Abbé Dony of Liège accidentally discovered a smelting process in 1809. Dony attempted to exploit his discovery commercially, but the problems of finding a market for the new metal were even greater than the technical ones of producing it. The concession was taken over in 1818 by Dominique Mosselman, one of Dony's partners, who had become wealthy as a contractor for Napoleon's armies, and after two decades of pioneering effort the industry

technical improvements and brilliant business leadership, especially from the Frenchman Louis Saint-Paul de Sinçay, who was general manager from 1846 until 1890, made it a model enterprise and one of the most prosperous industrial firms of all times. Production of crude zinc in its first year amounted to about 1,800 tons; by 1850 output exceeded 10,000 tons, and by 1870, 40,000 tons. Throughout this period Vieille Montagne produced directly between one fourth and one third of the total European output of zinc, and through its agreements with other producers controlled a much larger proportion. Dividends per share rose steadily from 5 per cent in 1837 to 48 per cent in 1846, dropped precipitately to 4 per cent in 1848, and averaged well over 20 per cent for the next twenty-two years. In addition reserves were built up to such an extent as to dwarf the nominal value of the initial capital. It was largely owing to the "propaganda efforts" of Vieille Montagne (as they were called in the annual reports) that the demand for zinc increased so rapidly in the middle decades of the last century. Most of the demand was for uses that had been introduced by the company itself, such as zinc sheets for roofing and zinc oxide as a base for paint, replacing the more common but poisonous white lead.[38]

Vieille Montagne produced for a world market, but the basis of its prosperity lay in its control of the large market in France, which had no important zinc deposits of its own.[39] In 1853 almost 50 per cent of its rolled zinc and more than two thirds of its zinc oxide were produced in its mills in France, although all mines and smelters were located in Belgium and Prussia.[40] Even in 1869, one half of total sales were in France, one fourth in Germany, Belgium, and Holland, and the remainder in England, America, Italy, and elsewhere.[41] Nevertheless, its management was quick to take advantage of new opportunities for expansion such as those presented by the great boom in German industry in the 1850's.

was on the verge of commercial acceptance. In 1837 the Mosselman family, living in semi-retirement in France, turned the concession and industrial equipment over to the newly created company headed by Mosselman's son-in-law, Count Charles Lehon, first Belgian ambassador in Paris.

For technical information on the manufacture of zinc, see *La Société de la Vieille-Montagne à l'Exposition universelle de 1889* (Paris, 1889), a brochure prepared for the Paris exposition of that year. For the industry generally, Leopold von Wiese, *Beiträge zur Geschichte der wirtschaftlichen Entwicklung der Rohzinkfabrikation* (Frankfurt, 1902).

38 *Vieille-Montagne à l'Exposition universelle*, p. 41.

39 The establishment of the Second French Empire and its attendant glorification—in particular, the reconstruction of Paris and the proliferation of artistic output—must not be overlooked as a factor in the expansion of the demand for zinc. Cf. *JCF*, XIV (1855), 876.

40 *VM*, annual report, 25 April 1854.

41 *Ibid.*, 30 April 1870.

The Antonius Mining Company, an enterprise set up in the Rhineland in 1845 by the French engineer Charles Rochez (or Rochaz), had gone into liquidation as an aftermath of 1848. In the summer of 1852 Saint-Paul de Sinçay, acting on behalf of Vieille Montagne, took over the assets of Rochez' company and formed a *commandite* known as the Rhenish Prussian Zinc Mining and Foundry Company.[42] One half the stock was taken by the shareholders of the defunct Antonius, the other by Sinçay and his associates, who contributed 700,000 francs in cash and "the patronage of Vieille Montagne"—that is, technical and commercial direction. Sinçay became general manager, and the statutes specified that a majority of the nine directors should always be chosen from the directors of Vieille Montagne.[43]

Shortly afterward the new enterprise acquired by fusion the Nassau Mining Company, yet another French enterprise that had been established along the Rhine in the 1840's, in this case by Charles Leconte.[44] Finally, in 1853, the Rhenish Prussian Company was taken over outright by Vieille Montagne, which at the same time absorbed three other subsidiaries in Belgium.[45] As a result of these dealings Vieille Montagne acquired—in Germany—several calamine, blende, and lead mines along both banks of the Rhine from Coblenz to Cologne, and in Baden. For processing the ores it constructed smelters and rolling mills with an annual capacity of 6,000 to 8,000 tons at Borbeck, Oberhausen, and Mülheim, in the Ruhr. The following year it purchased the Neu-Wesel coal mine to supply fuel for these establishments.[46] The entire German market, previously cut off by the Prussian tariff, was now opened to Vieille Montagne. The capital for this expansion was obtained by a new issue of shares amounting to 2,500,000 francs (par value—the market value was more than five times as great) and 6,000,000 francs in bonds issued in France through the Crédit Mobilier, which had also played a part in bringing about the mergers.

Simultaneously with its expansion in the Rhineland, Vieille Montagne extended its influence across the full extent of Germany by

42 *VM*, Société des mines et usines à zinc de la Prusse rhénane, Statutes, 20 August 1852.
43 *Ibid.*, Art. 20.
44 *JCF*, VI (1847), 884; VII (1848), 140; XI (1852), 944–45.
45 *VM*, annual report, 25 April 1854.
46 *VM*, annual meeting, 26 April 1855, *procès-verbal*. In 1954 the German properties of Vieille Montagne, organized since 1934 in the wholly owned subsidiary A. G. des Altenbergs für Bergbau- und Zinkhüttenbetrieb, produced 21,541 tons of crude zinc. Vieille Montagne's own production was 146,000 tons. Total production in western Europe was 744,000 tons. (*VM*, annual report, 28 May 1955.)

organizing the chaotic and inefficient Silesian zinc industry. The Silesian industry consisted of a multitude of small, independent operators, frequently employing no more than a single furnace. One result was technical inefficiency, as the operators did not have the capital to install the best equipment; another was frequent price wars, which upset the entire market. The groundwork for unification was laid by Vieille Montagne in 1852;[47] but authorization from the Prussian government for the Silesian Zinc Mining and Foundry Company, which brought together in one enterprise the principal producers of that area, was not obtained until September 1853.[48] The capital, originally set at 5,000,000 thalers, was soon raised to 10,000,000 (37,500,000 francs) to accommodate the numerous demands for inclusion. The largest group of the original stockholders consisted of the former zinc producers whose establishments were incorporated in the new undertaking; but the initiative for the merger clearly came from Vieille Montagne and the Crédit Mobilier.[49] The latter acted as fiscal agent for the Silesian company, holding its idle balances, handling receipts from sales, making disbursements, and paying dividends. The first board of directors included several representatives of the parent institutions; the general manager, a Frenchman, was a former employee of Vieille Montagne.

In its first year the new company operated several calamine and coal mines and nine smelters with a total of 177 furnaces. Its properties were not, however, suitably organized for rational exploitation. The smelters were not near enough to the mines, and the furnaces were small and antiquated. The earliest efforts of the management were therefore directed to setting its installations in order. Some furnaces were enlarged, others closed down, and new equipment was installed.[50] Subsequently the company expanded its operations by purchasing and leasing new mines and building new smelters and rolling mills. From the date of its foundation it was the second largest zinc producer in Europe; even so, its capacity was only about half that of Vieille Montagne itself.

[47] Louis Courvoisier to Saint-Paul de Sinçay, Hamburg, 18 December 1852 (*VM*, Casier 29, Dossier 74). Courvoisier was resident partner in Hamburg of the Paris firm, Des Arts et Cie; he was a commissioner of Vieille Montagne and one of the organizers of the Silesian company.

[48] *L'industrie*, III (1854), 622; Silesian Zinc Company, first annual report, 27 April 1854.

[49] Vieille Montagne, annual report, 25 April 1854; Crédit Mobilier, annual report, 29 April 1854.

[50] Annual report, 22 April 1855.

The Silesian industry required commercial as well as technical reorganization. The first business of the company in this respect was to "create a market for laminated zinc [in central and eastern Germany] and . . . organize warehouses and selling agencies, as has been done by Vieille Montagne."[51] It had also to see to its relations with other zinc producers. At the time of its foundation it made two important contracts: one with the independent zinc producers of Upper Silesia for pooling all sales of the contracting parties; the other with Vieille Montagne, by which the Silesian company was allotted a quota for the sale of laminated zinc in France, England, and the United States.[52] As a result of the former contract, it was able to control about two thirds of the output of the Silesian industry, although it produced directly only one fourth. In spite of this, the success of the company was much less striking than that of its mentor; the market for laminated zinc in eastern Germany did not develop as rapidly as was hoped, and production outran sales, making enforcement of its agreements with the other producers difficult. Dividends for the first fifteen years averaged less than 3 per cent, but in time the company was able to pay 10 per cent and more.[53] It continued to exist, with the French interest as strong as ever, into the second quarter of the twentieth century.[54]

IV

While Vieille Montagne was reorganizing the German zinc industry, a number of its French stockholders and directors entered the copper industry. Although that industry in France had once been relatively productive, domestic ores had been all but completely exhausted by the nineteenth century. The greater part of French copper supplies in the 1840's came from England, the remainder from Germany and Russia. With the rapid extension of the telegraph network and the boom in the building trades which came with the Second Empire (in addition to other influences of an international character), the price of copper skyrocketed.

In December 1852, the Paris banking firm of Donon, Aubry, Gautier et Cie, in which the Count de Morny, half brother of Napoleon III and a founder of Vieille Montagne, was a silent partner, acquired along the

[51] *Ibid.*
[52] *Ibid.*
[53] Wiese, *Geschichte der Rohzinkfabrikation*, pp. 207–8.
[54] Bénaerts, *Industrie allemande*, p. 352.

Rhine in the province of Coblenz properties that included three mining sites and six copper smelters.[55] The following month these properties were exchanged for three thousand shares in the newly formed Rhine Copper Mining and Foundry Company. The authorized capital of the company was 1,000,000 thalers (3,750,000 francs), but only one half of this was called up initially.[56] The original list of stockholders showed eighteen names; sixteen of them, accounting for forty-five hundred of the five thousand shares, were Frenchmen prominently associated with Vieille Montagne.[57] Saint-Paul de Sinçay, who played the principal role in organizing the company, became its general manager.

The Vieille Montagne people were not the only Frenchmen to be interested in German copper. The rising price of copper, coupled with the introduction of new techniques for smelting low-grade ore, led to the reopening of a number of old mines that had been shut down. One such was the Heidberg mine in Westphalia, which produced silver and lead as well as copper. Formerly a possession of the Archbishop of Cologne, it had been worked continuously from the Middle Ages to 1790. It was reopened in 1855 by a French company using the latest machinery and treating the ore with a new process devised by the French engineer Ferdinand Rohr.[58]

Another mine of the same type was the Marienberg copper mine, reputed to be one of the oldest mines in the Rhineland. It belonged to the Société métallurgique de Bonne, directed by Frédéric Guillaume Charlier. In 1853–1854 Edouard Letrange, a metallurgical entrepreneur who had been associated with a number of German enterprises, obtained the fusion of this with several other mines in the same region. He then formed with the Estivant brothers, copper merchants of Givet (France) and owners of a smelter near Coblenz, the Marienberg and Bensdorf Mining and Smelting Company.[59]

The French created no giants in the German copper industry, such as Vieille Montagne in zinc or Stolberg in lead; but the industry as a whole was smaller. Otherwise, the pattern was much the same.

[55] Contract of 28 January 1853, Opp. Hausarchiv.

[56] Statutes, 10 February 1853, Opp. Hausarchiv.

[57] Foundation Act, 10 February 1853, Opp. Hausarchiv.

[58] *L'industrie,* V (1856), 55, 141. The problem of determining nationality sometimes arises. Here and elsewhere I have used wherever possible an explicit statement of nationality in the original sources, or, lacking that, the legal residence of the individual. When other criteria have been relied upon, such as judgment from the name only, mention of this is made either in the text or notes.

[59] *JCF,* XIII (1854), 89, 118.

V

The remarkable success of French entrepreneurs in the nonferrous-metals industry was surprising even to some Frenchmen. In 1847 the *Journal des chemins de fer* remarked that "our capitalists, ordinarily timid, who will scarcely venture out of a given circle, have not been afraid to cross the Rhine in the aim of developing the exploitation of zinc . . . of which French companies are now the masters throughout the Rhenish provinces. Moreover, the Germans, who have remained stationary for twenty years, offer us between Coblenz and Cologne a vast field for the exploitation of iron, lead, silver, and copper."[60] The author of these words concluded by advising his fellow citizens to take advantage of this open field and do for the German iron and coal industries what they had already done for zinc and were in the process of doing for other nonferrous metals. As is frequently the case, several entrepreneurs were well ahead of their journalistic mentor.

The West German coal and ferrous-metals industries are, in their modern form, but little more than one hundred years old. The crucial period for their development was the stretch of three decades from 1840 to 1870. In this period coal mining was made into a systematic, market-oriented industry; coke smelting of iron ore was introduced along with several innovations in the refining of the crude metal; and, in general, the basis for all subsequent improvements and developments was laid. The Prussian coal industry, the most advanced in Germany, lagged behind that of France and Belgium in 1850. Total pig iron production in the Zollverein in that year came to slightly more than 200,000 tons, of which about 60 per cent was produced in Prussia.[61] Three fourths of the Prussian and an even larger proportion of the total German output were produced in charcoal furnaces. The first coke furnace in the Ruhr area was set up in 1847, but not until the 1850's was the new technique definitely established; as late as 1855 less than 50 per cent of Prussian pig iron was smelted with coke.[62]

French concerns played no small part in establishing the Ruhr iron and steel industry. Among the more outstanding of these was the

[60] *JCF*, VI (1847), 261.

[61] Ludwig Beck, *Die Geschichte des Eisens in technischer und kulturgeschichtlicher Beziehung* (5 vols.; Braunschweig, 1887–1903), IV, 696, 716.

[62] *Ibid.*, IV, 983, 995. In the same year France produced more iron in coke furnaces than was produced in all German states by all methods combined.

Société des Mines et Fonderies du Rhin, Charles Detillieux et Cie.[63] Detillieux was only one of several ironmasters in the Ruhr who experimented with coke smelting, but, according to one historian of German industry, it was not until his "decisive experiments" employing Ruhr coke exclusively in the production of pig iron suitable for forging from other than blackband ores that the great Ruhr industry was securely launched.[64] Detillieux's company was founded in the 1840's for the exploitation of iron mines and a charcoal blast furnace in the Siegerland.[65] In 1848 it was reorganized, the capital set at 3,500,000 francs, and a site purchased at Berge-Borbeck, in the Ruhr, for the construction of a coke blast furnace.[66] The first furnace at Berge-Borbeck was blown in in 1851 with the "hitherto unhead of production of twenty-five to thirty tons per day."[67] Within a few years the company owned a coal mine, three more furnaces at Berge-Borbeck, and the necessary coke ovens, steam engines, etc. At Kupferdreh, on the Ruhr River, it erected three blast furnaces and accompanying coke ovens to smelt the blackband iron ore from a mine owned by the Frenchman H. Lamarche; it also retained its charcoal furnace at Langheck, on the Lahn River in Nassau, where it owned iron mines producing more

[63] Hans Spethmann, *Das Ruhrgebiet in Wechselspielen von Land und Leuten, Wirtschaft, Technik, und Politik* (2 vols.; Berlin, 1933), II, 263, 284. It is possible that Detillieux himself was Belgian, not French. Spethmann refers only to "die kapitalkräftige französische Firma Charles Detillieux et Cie"; of the other authoritative writers, Beck (*Geschichte des Eisens,* IV, 983) calls him a "Belgian engineer," whereas Bénaerts (*Industrie allemande,* p. 513) and Oskar Stillich (*Eisen- und Stahlindustrie* [Nationalökonomische Forschungen auf dem Gebiete der grossindustriellen Unternehmung, Vol. I (Berlin, 1904)], p. 145) both state that he was French. Fernand Engerand (*Le fer sur une frontière; la politique métallurgique de l'Etat allemand* [Paris, 1919], p. 32) refers to him as "Charles de Tillieux, un Français."

[64] Bénaerts, *Industrie allemande,* p. 359. See also Otto Johannsen, *Geschichte des Eisens* (Düsseldorf, 1925), p. 156, and Spethmann, *Ruhrgebiet,* II, 265. A few furnaces in the 1840's had employed a mixture of coke and charcoal as fuel. The Friederich Wilhelm works at Mülheim, which fired a furnace wholly with coke in 1850, is generally credited with being first in the Ruhr itself (the 1847 furnace was at Hochdahl, south of the Ruhr valley, but used Ruhr coke); but it depended upon the relatively scanty blackband ore found in Ruhr coal measures. Detillieux's ore came from the Siegerland.

[65] Notarial archives of *Maître* Emile Fould (1832–1880), Paris, "Dépôt par M. Ed. Blount et M. Charles Gosselin d'un acte concernant la Société des Mines et Fonderies du Rhin," 15 December 1852. (The Fould Notarial Archives are now located in the offices of *Maître* René Philippot, 60, rue de la Chaussée d'Antin, Paris. Acknowledgments are freely accorded to M. Philippot for permission to consult these archives, and to M. Meunier, his chief clerk, for facilitating my research.)

[66] *Ibid.* Blount, an Englishman by birth but throughout his active life a Paris banker, was chairman of the company; Gosselin was vice-chairman. About 20 per cent of the capital was furnished by English friends and relations of Blount, the remainder by residents of Paris. The "committee of surveillance" included, in addition to Blount and Gosselin, J. F. Laveissière, Ch. L'Habitant, and Emile Rainbeaux of Paris, and John MacNamara of London.

[67] Beck, *Geschichte des Eisens,* IV, 983.

than 100,000 tons of ore annually with an average metallic content of 46 per cent.[68] In 1855 Detillieux's company was merged with another French enterprise in Germany, the Phoenix Mining and Metallurgical Company (Phönix A.G. für Bergbau- und Hüttenbetrieb, Société Anonyme des Mines et Fonderies du Phénix).

Phoenix was the name taken in 1844 by the Belgian *société en commandite* T. Michiels et Cie when it moved its establishments from Eupen to Eschweiler, near Aachen, in order not to be penalized by the new Zollverein tariff on worked iron.[69] Its principal business at that time consisted of the manufacture of sheet iron and railway equipment—rails, axles, and wheel rims—which it marketed throughout Germany. It obtained pig iron from Belgium, as it had no blast furnaces of its own, but it was a substantial concern, nevertheless. In 1852, by which time it employed two thousand workmen, it earned profits of 1,400,000 francs on a capital of 4,000,000.[70] At this point the Oppenheims and André Koechlin [71] formed a syndicate of Paris bankers to purchase the works and set up a joint-stock company with a capital of 1,500,000 thalers (5,625,000 francs).[72]

Koechlin became the first chairman of the reorganized firm, and the board of directors announced among its earliest decisions another issue of shares to double the capital.[73] Actually, this step had been foreseen in 1852, for the principal reason underlying the transformation of the old company was to free it from its dependence on Belgian iron. To this end a site was purchased in Laar, near Ruhrort, at the junction of the Ruhr and Rhine rivers, and the construction of new coke blast furnaces was begun. Simultaneously, in order to become completely independent of outside suppliers, the company leased two coal mines for a period of thirty years.[74]

Near the end of 1854 overtures for fusion were made to the Rhine Mining and Metallurgical Company.[75] Detillieux's company was the

[68] *JCF*, XII (1853), 808.
[69] Opp. Hausarchiv, Band 198.
[70] *JCF*, XII (1853), 919.
[71] See above, p. 288.
[72] Opp. Hausarchiv, contracts of 6 April and 29 April 1853. The decree of authorization for the company was dated 10 November 1852, to take effect 1 July 1853. The principal members of the syndicate, in addition to the Oppenheims and Koechlin, were F. Bartholony, chairman of the Paris–Orléans Railway, Count A. de Rainneville, a director of the same company, and Leroy de Chabrol et Cie, Paris bankers, but the syndicate also included J. Mirès, several directors of the Crédit Mobilier, and others.
[73] Opp. Hausarchiv, A. Koechlin to A. Oppenheim, Paris, 15 September 1853.
[74] *JCF*, XII (1853), 919–20.
[75] Opp. Hausarchiv, A. Koechlin to S. Oppenheim, Paris, 23 December 1854.

smaller, but it was in a better bargaining position than Phoenix mainly because of Detillieux himself, whom the directors of Phoenix had decided they had to have to manage their new blast furnaces. Phoenix's first offer was turned down, but early in 1855 a contract was reached that met the minimum demands of both parties.[76] The capital of the integrated firm was again doubled, to 6,000,000 thalers (22,500,000 francs), of which slightly more than 5,000,000 francs was given in exchange for the properties of the dissolved Detillieux company; the remainder of the new shares were issued over a period of years to obtain working capital and funds for further expansion.

The physical properties of the company presented a formidable aspect in comparison with the infant state of the remainder of German industry. In addition to the *apports* of Detillieux's company, they included the original plant at Eschweiler-Aue, on the Aachen–Cologne railway, with twenty-eight puddling furnaces, a refinery, a foundry, six reheating furnaces, several rolling mills, and various special shops, including one capable of producing ten sets of railway wheels and axles per day. Coal was obtained locally and pig iron from the other establishments of the company. The plant was also equipped with a steam engine of 450 horsepower. The new mills at Ruhrort consisted of four coke blast furnaces, a foundry, two refineries, fifty puddling furnaces, four steel puddling furnaces, coke ovens with a daily capacity of almost 150 tons, and a rolling mill with an annual capacity of 18,000 tons of rails. The company's steam engines for blast and forge developed more than 1,000 horsepower. By virtue of its strategic location on the Cologne–Minden railway, at the junction of the Ruhr and Rhine, it could compete effectively with any enterprise in the Zollverein or Austria, and even outside of Germany; transport costs on iron shipped to Rotterdam amounted to less than three and a half francs per ton.[77]

Altogether, the merged company owned twelve blast furnaces with an annual capacity of more than 60,000 tons of pig iron, although actual production in the first year of integrated operations was only 46,000 tons, owing to a shortage of ore and other difficulties.[78] Its nearest competitor had but five furnaces, and there were only thirty-three furnaces in the entire Ruhr area, of which twenty-six were wholly

[76] Fould Notarial Archives, minutes of the general assembly of the Société des Mines et Fonderies du Rhin, Paris, 10 February 1855.

[77] *JCF*, XIV (1855), 808.

[78] Charles Detillieux, "Bericht über den Betrieb und die Haushaltungsverwaltniss des Phönix," *Berg- und hüttenmännische Zeitung*, XV (1853), 425–29.

coke-fired.[79] The average output of all Prussian blast furnaces in 1855 was 1,085 tons per furnace; for the Rhineland and Westphalia, the area which includes the Ruhr, the average was 1,625 tons per furnace; considering only the Dortmund district, which contained most of the Ruhr blast furnaces and very few outside the Ruhr, the average was less than 3,000 tons per furnace.[80] The average production of the Phoenix furnaces, including the charcoal furnace with a maximum capacity of 1,200 tons, was almost 4,000 tons, and the rated capacity averaged more than 5,000 tons each. The actual blast furnace output of Phoenix in 1855 amounted to one sixth of the Prussian total.[81]

The coal mines "Carolus Magnus" and "Graf Beust," leased (later purchased) by the company, produced 180,000 tons in 1855, and were capable of producing up to 300,000.[82] Included in the Detillieux *apports* was also the concession for the "Rhein-Elbe" mine, which, however, was resold in 1856 to the Gelsenkirchener Bergwerksverein, another Detillieux enterprise.[83] The company owned more than 150 concessions for iron mines throughout western Germany, from which it produced 125,000 tons of ore in 1855.[84] Nevertheless, it was also forced to purchase from other mines and, at one point, to shut down a blast furnace for want of a charge.[85] In its first year as an integrated concern the forges and rolling mills at Ruhrort and Eschweiler turned out 25,000 tons of rails and 7,500 tons of other railway equipment. The company employed six thousand workmen in 1856, which in all probability made it the largest employer in Germany.[86]

The treaty of fusion between Phoenix and the Detillieux firm, signed January 6, 1855, did not take effect legally until July 1 of that year, but Detillieux was made general manager of Phoenix and took charge immediately. The situation that he faced was one of confusion consequent upon a too rapid expansion with too little attention to details. Virtually all of the enormous capital of the company was immobilized in fixed equipment, and working capital amounting to 680,000 thalers (2,550,000 francs) was being supplied on current account

[79] Spethmann, *Ruhrgebiet,* II, 266.

[80] Nicolaus Hocker, *Die Grossindustrie Rheinlands und Westfalens* (Leipzig, 1867), p. 321.

[81] The total output of Prussian blast furnaces, which includes some castings as well as pig iron, was 293,000 tons in 1855. See *Annalen des deutschen Reichs,* 1876, p. 1057.

[82] Phoenix, annual report, 27 October 1857.

[83] *Ibid.* For the Gelsenkirchen company, see below, p. 305.

[84] Stillich, *Eisen- und Stahlindustrie,* pp. 139–40.

[85] Opp. Hausarchiv, minutes of the directors' meeting, Paris, 30 September 1855.

[86] Detillieux, "Bericht über . . . Phönix," *Berg- und hüttenmännische Zeitung,* XV (1856), 427.

by the company's bankers, Oppenheim and Blount.[87] To correct this unfavorable situation a bond issue of 1,000,000 thalers was arranged. One half of the resulting bonds were purchased directly by the stockholders and the remainder underwritten for issue in Paris by the Duc de Galliera.[88]

The rapid expansion had also dislocated sources of supplies. Detillieux therefore purchased the outstanding minority shares in the "Graf Beust" and "Rhein-Elbe" coal mines, contracted with the "Maria Anna" mine for the supply of the Kupferdreh furnaces, bought several more iron mines, limestone deposits, etc., and constructed new coke ovens.

But the most difficult and delicate problem facing Detillieux was his relations with his directors and supervisory personnel. Both Detillieux and Koechlin, the chairman, were strong-willed, independent personalities who lost no time in coming into conflict with each other. At the given juncture, the general manager was of greater importance to the business than the chairman, and in the face of the passivity of his fellow directors, Koechlin handed in his resignation.[89] A reformed board of directors was named consisting of six Prussians and five Frenchmen, with Blount as chairman.[90] On the executive committee of the board with Blount were Abel Laurent, another man from the old Detillieux enterprise, Count Alphonse de Rainneville, who had entered Phoenix with Koechlin, and two former associates of Michiels in the old Phoenix, Alex Jehgers and Jules Thelosen. Michiels himself was retained as an "honorary director" to represent the firm in the meetings of the Prussian Association of Ironmasters.

H. J. Bourdouxhe, another former partner in the old Phoenix, was made a general manager, presumably on a par with Detillieux, but with special supervision of the Ruhrort mills. As the newest and most complete installation possessed by the company, these were also expected to be the most profitable. In fact, they proved to be the most expensive and troublesome, owing largely to inefficient management. In the directors' meeting of August 29, 1855, Detillieux skillfully maneuvered Bourdouxhe into a position where the latter voluntarily offered his resignation, and Detillieux was given a free hand to reshuffle his top supervisory personnel.[91] This he did by moving his

87 Opp. Hausarchiv, minutes of the directors' meeting, 25 April 1855.
88 *Ibid.*, 19 May 1855.
89 *Ibid.*, 25 April 1855.
90 *Ibid.*, 19 May 1855.
91 *Ibid.*, 25 August 1855.

brother Emile from the management of the works at Borbeck to those at Ruhrort, and by adding Borbeck to the department of his manager at Kupferdreh, the Frenchman Duvivet. As consolation, Bourdouxhe was also made an "honorary director" with a salary for life of 18,000 francs, but no specific duties, on condition that he "would not associate himself either as a silent partner or member of the management with any competing concern having as its aim the manufacture of iron." [92]

Detillieux was not merely an able administrator and engineer; he was a salesman as well. Contracts poured into Phoenix almost from the date that he took charge. In June 1855, before the merger was legally accomplished, Detillieux made a trip to Austria and returned with a contract for 11,500 tons of rails for the Austrian State Railway, recently converted into a private undertaking by the French Crédit Mobilier.[93] Before he had been on the job for six months he had contracts to assure capacity production for the following year. At the annual stockholders' meeting of 1856, he was able to announce that orders on hand were sufficient to occupy the plants to capacity until March 1858. The balance sheet of Phoenix at the end of 1855 showed that fourteen German railways owed it a total of 267,203 thalers (more than 1,000,000 francs) for material already delivered.[94] Its contracts with the industrially strategic Cologne–Minden railway, on which two of its plants were located and of which it became a stockholder, were especially important.

Not all of its years were either as dramatic or profitable as that of its fusion with Detillieux's company, of course. As is normal with most business enterprises, many difficulties of both a technical and market nature arose to impede the smooth flow of affairs. In 1855, two blast furnaces at Ruhrort had to be shut down temporarily for reconstruction; another at Kupferdreh, owing to a shortage of ore. An explosion in the coal mine at Eschweiler temporarily interrupted operations there and necessitated a costly diversion of coal from the Ruhr mines. Greater disaster overtook the firm, in common with the iron industry throughout Europe, when the depression of 1857–1858 brought its operations to a near standstill; seven of the company's twelve furnaces had to be shut down.[95]

[92] *Ibid.* Michiels was subject to a similar condition; he violated it in the same year and was thereupon dismissed.

[93] *Ibid.*, 27 June 1855; *JCF*, XIV (1855), 808. On the Austrian State Railway, see my article, "The Crédit Mobilier and the Economic Development of Europe," *Journal of Political Economy*, LXI (1953), 466.

[94] Opp. Hausarchiv, minutes, 28 January 1856.

[95] Beck, *Geschichte des Eisens*, IV, 991.

Moreover, it appears that the company, despite its very substantial assets, was overcapitalized. There was certainly an element of "water" in the stock issue of 1853 and, although the documents to prove it are lacking, the same was probably true of the fusion of 1855.[96] Possibly owing to a shortage of working capital the directors paid themselves in stock rather than cash—but stock valued at par when it commanded a substantial premium on the market.[97] There was more than mere national jealousy in the observation of the *Frankfurter Aktionär* that the concern was "one of those pompous Paris speculative enterprises" that expected to become an overnight success merely because of its great size.[98]

The company continued to be plagued by a shortage of working capital. Although its earnings in 1856–1857 amounted to almost 2,000,000 francs, dividends were paid in preferred stock to conserve the cash for working capital.[99] In 1860, at the end of three lean depression years, the company was again reorganized. The nominal capital, not all of which had been issued, was written down to 10 per cent of its face value, and a new issue of 2,500,000 thalers (9,375,000 francs) in preferred stock was made to cover the company's debts to its bankers and other creditors.[100] On the demand of the Prussian government the statutes were revised to require that the chairman and vice-chairman be citizens of Prussia; Blount then stepped down to make way for David Hansemann of the Discontogesellschaft, but he retained his seat as a director along with the other Frenchmen. Detillieux, however, resigned to devote his energies to his other enterprise, the Gelsenkirchener Bergwerksverein.[101]

After this purge the company resumed its upward march. The average dividend for the next decade was in excess of 15 per cent on preferred, and higher still on common stock.[102] A contemporary observer could say of it in the 1860's: ". . . one of the most important joint-stock companies engaged in the iron industry, . . . its production forms a large proportion of the total production of the Rhineland and Westphalia." [103] Nor was the French element forgotten. As the first fully

[96] The shares of the Rhine company, with a nominal value of 3,500,000 francs, were exchanged against new shares with a par value of 5,006,250 francs; but the difference may have been accounted for by assets above the value of the nominal capital.

[97] Opp. Hausarchiv, minutes, 30 December 1855.

[98] *Der Aktionär*, 14 October 1855, quoted by Stillich, *Eisen- und Stahlindustrie*, p. 142.

[99] *Ibid.*, pp. 143 f.

[100] Opp. Hausarchiv, Band 198.

[101] Stillich, *Eisen- und Stahlindustrie*, pp. 146 f.

[102] *Ibid.*, pp. 149–50.

[103] Hocker, *Grossindustrie Rheinlands und Westfalens*, p. 341.

integrated company in the German iron industry, Phoenix was said at the time of its formation to "bear comparison with the greatest works of the same type in Belgium and France." [104] In 1872, following the Franco-Prussian War, a syndicate formed to issue a new block of stock included the Société Générale pour favoriser le développement du Commerce et de l'Industrie en France!

Just previous to the Franco-Prussian War yet another large enterprise was begun in the German ferrous-metals industry by a group of French and Belgian entrepreneurs. This was the Société anonyme des Aciéries rhénanes (Rheinische Stahlwerke A.G.), with headquarters in Paris, which erected at Meiderich in the Ruhr the first German plant especially built for the purpose of producing Bessemer and Siemens-Martin steel.[105] The chief engineer of this company, Gustav Pasteur, was one of the pioneers in introducing the Thomas-Gilchrist process into the German steel industry.[106]

French enterprise in the German coal industry was scarcely less important than in iron and steel. The first modern limited company in the Ruhr coal industry, the Hardenberg Mining Company (S.A. des Mines de Hardenberg), was formed in 1838 by a group of mine owners and capitalists from Lille, Valenciennes, Anzin, and Douai. In subsequent years a number of other French companies entered the industry in the Ruhr and elsewhere in Germany.[107] Gustav Mevissen, who in 1847 was attempting to organize the Kölner Bergwerksverein with all-German capital, wrote a memoir denouncing the influence of foreign capital in the Ruhr-Rhine coal industry. "It is a notorious fact," he wrote, "that in recent years several coal and other enterprises in the Rhineland have been acquired and exploited on behalf of French and English capitalists." [108] From the standpoint of his compatriots Mevissen was in a good position to know but a poor position to complain about foreign influence in German industry, as he himself was instrumental on more than one occasion in inviting foreign capitalists to come in, or in co-operating with them after they invited themselves in.

104 Phoenix, annual report, 30 October 1855, cited by Stillich, *Eisen- und Stahlindustrie*, p. 139.

105 Spethmann, *Ruhrgebiet*, II, 359.

106 Beck, *Geschichte des Eisens*, V, 641.

107 Bénaerts, *Industrie allemande*, pp. 350–53; Engerand, *Le fer sur une frontière*, p. 32; *L'industrie*, V (1856), 462; *JCF*, XXII (1863), 828; *Moniteur belge (Annexe)*, 13 June 1873, pp. 411–12. See Appendix for details.

108 Oskar Stillich, *Steinkohlenindustrie* (Nationalökonomische Forschungen auf dem Gebiete der grossindustriellen Unternehmung, Vol. II; Leipzig, 1906), p. 203. Cf. Bénaerts, *Industrie allemande*, p. 353, and Henderson, *Industrial Europe*, p. 156 n.

The largest German coal company in the nineteenth century was the Gelsenkirchener Bergwerks A.G.[109] Between 1848 and 1853 Louis Obert of Paris and John Browne of London obtained a majority of the shares of the concession known as the "Rheinelbe" (or "Rhine-Elbe") in the vicinty of Gelsenkirchen, slightly north of the line that the Ruhr mining area had reached at that time. Early in 1854 the concession was purchased by the Rhine Mining and Metallurgical Company (already owner of the adjacent "Alma" concession), which merged with Phoenix the following year.[110] A shaft was immediately sunk, but difficult seepage problems developed, and in 1856 the concessions were resold for 900,000 francs to Detillieux, who formed a new company, the Gelsenkirchener Bergwerksverein, Detillieux frères et Cie, to take them over. In time Detillieux was able to overcome the water problem, and by the end of 1861 the mines had commenced production. At the end of 1872 the entire enterprise, including the active mines, concessions totaling 2,500 acres, machinery, buildings, workers' housing, and a short railway, was sold to a German syndicate for 4,240,000 thalers (15,900,000 francs).[111] Profit-and-loss and production figures are not available for the years that the company was French, but in 1873, its first year as a German company, it produced 362,707 tons of coal—the largest output of any German enterprise to that date—and paid a dividend of 23 per cent on a capital of more than 17,000,000 francs despite the severe depression that began in mid-year.[112]

VI

It was not alone in the heavy industries that the French contributed to the industrialization of Germany. No account of French contributions to German development would be complete without mentioning the influence, both direct and indirect, that Frenchmen exerted on German financial institutions. The rapid growth and concentration of the great German credit banks in the last half of the nineteenth century was one of the most striking accompaniments—or, according to some accounts, causes—of the industrial revolution in Germany. It is probable that the part played by German banks in this process has been overemphasized; on the other hand, their role was considerable, and it is frequently lost

[109] Stillich, *Steinkohlenindustrie*, p. 144.
[110] Spethmann, *Ruhrgebiet*, II, 284; see above, pp. 296–97.
[111] Opp. Hausarchiv, Band 204.
[112] Stillich, *Steinkohlenindustrie*, pp. 147, 149.

from view that the model and inspiration for these banks were French.

The first of the German "great banks" was the Bank für Handel und Industrie in Darmstadt, more commonly known as the Darmstädter Bank.[113] It was founded in that eventful year, 1853, by two Cologne bankers and industrialists, Abraham Oppenheim and Gustav Mevissen. Although the initiative for its formation was German, the idea and inspiration were French, as it was modeled directly on the French Crédit Mobilier; more than half its original capital was French, and a large part of the practical experience both in promoting and in organizing the operations of the bank was also from the Crédit Mobilier.[114]

Nor did French influence cease with the founding of the Bank of Darmstadt. Several other German banks benefited from French capital and practical experience, notably the Berliner Handelsgesellschaft and the Allgemeine Deutsche Creditanstalt of Leipzig.[115] The Prussian Central Land Bank (Preussische Centralboden Kredit A.G.), established in part by French capital and with the encouragement of Bismarck on the eve of the Franco-Prussian War, was modeled on the French Crédit Foncier and included on its first board of directors the governor of that institution, Louis Frémy.[116]

One of the earliest insurance companies in Germany, the Colonia, was founded in 1839 with the collaboration of Paris bankers to take over the policies in the Rhineland that had previously been handled by French companies.[117] In 1852 the Cologne Reinsurance Company (Kölnische Rückversicherungs-Gesellschaft), one of the first of its kind in the world, was founded with a large contingent of French capital. Of the total capital of 3,000,000 thalers (11,250,000 francs), about two thirds was raised through the Paris Bourse.[118]

[113] The Schaffhausen'scher Bankverein, founded in 1848, was the first corporate bank in Germany, but it was not the model for the subsequent credit banks. See my article, "Founding the Bank of Darmstadt," *Explorations in Entrepreneurial History,* VIII (February 1956), 113, 120.

[114] *Ibid., passim.*

[115] *JCF,* XV (1856), 162. See also the *Economist,* 4 October 1856: "Frenchmen have invested immense sums in the railways, banks, crédits mobiliers, and enterprises of all kinds which have been started in Germany since the peace." The German banks were unable to obtain Bourse listings in Paris owing to a prohibition by the government on new authorizations in 1856.

[116] *JCF,* XXIX (1870), 435; *L'industrie,* XIX (1870), 417–18; Alex von Frankenberg-Ludwigsdorff, "Abraham Freiherr von Oppenheim, (1804–1878)," *Mitteilungsblatt der Industrie- und Handelskammer zu Köln,* V (1950), 300.

[117] *Ibid.,* p. 299; Alfred Krüger, *Das kölner Bankiergewerbe vom Ende des 18. Jahrhunderts bis 1875* (Essen, 1925), p. 149.

[118] *Ibid.* The original list of stockholders included 48 Frenchmen of a total of 106 (Opp. Hausarchiv, register of stockholders).

Despite the range of industries already considered in this article, it has not been possible to attempt an exhaustive chronicle of French contributions to German industrialization. Further patient research will no doubt reveal the existence of many other firms, even in the industries already considered. Large areas, such as the textile industries, have scarcely been mentioned at all, even though French influence is known to have been considerable.[119] In fact, the material presented thus far has been focused, not on the industries for which France itself is famous, but on those in which it has been commonly supposed that Germany has always been—in modern times, at least—superior to France. It should be interesting, therefore, to compare these with an industry in which France was the acknowledged master. The glass industry is a case in point, although silk would do as well.

The giant of the glass industry in France was the Manufacture de Saint-Gobain, with roots going back to the seventeenth century. In Germany Saint-Gobain owned or leased glassworks at Stolberg, Waldorf, and Herzogenrath. The Stolberg affair (actually the Aachen Glass Company—Société des Glaces d'Aix-la-Chapelle) is particularly revealing as to why and how the French established enterprises of this nature in Germany. It was the Marquis de Sassenay, promoter and manager of the Stolberg Zinc Company, who first conceived the notion in 1846 of establishing a glassworks in Germany with the assistance of Saint-Gobain. In a letter to his friend Abraham Oppenheim he set forth the procedure to be followed:[120]

> For the glass business there is no less urgency in establishing the basis at once and even beginning its execution if you can obtain the co-operation of Rotschild [sic], because one must not attempt such a business without being certain of powerful co-operation. The point of departure would be the formation of a *société anonyme* with a capital of 3,000,000 thalers [11,250,000 francs] with bearer shares, elevation of Prussian import taxes to the point of prohibition, and the delivery to the company by the founders, at a fixed price, of a plant with a capacity of so much glass of such and such dimensions. The price of the plant should be such as to leave a profit to the founders to distribute *pro rata* according to their interests. *The elevation of customs duties is of the utmost importance, because the factories in France manufacture so cheaply that they can in case of competition meet any price.* Here all the conditions for manufacture are admirable. A glass factory at Stolberg would find all the elements of success together: intelligent and cheap working population; perfect sand; fuel on the spot and at a moderate price; complete transport facilities, which would give a large market

[119] See, e.g., Bénaerts, *Industrie allemande,* pp. 362–66, for a listing of some of the contributions made by Frenchmen to Germany's woolen, silk, and cotton industries.

[120] Opp. Hausarchiv, Sassenay to Oppenheim, Stolberg, 2 March 1846. Italics supplied.

not only for glass, but also for by-products and chemicals. In France, where there is open competition, the Manufacture de St. Gobain is one of the most solid and most brilliant businesses that was ever made; in Germany one can do even better. . . . One thing on which one must not deceive himself, however, is that the manufacture of glass is very delicate and very difficult, and if we wish to succeed immediately, if we do not wish to grope our way through losses for three or four years, *it is indispensable to assure ourselves of the co-operation of very special people. It is for that reason that my first thought was to discuss the matter with St. Gobain*. Although some difficulties have arisen, I still believe that you should try again and I have no doubt that you will succeed if you join the name of Rotschild [sic] to ours. The Manufacture de St. Gobain, which is menaced with losing the German market, will find a consolation to indemnify its interests by the profits which it could receive from the new business, and it would find little to lose in bringing us at once the experience that we are certain to acquire in a few years. It has also occurred to me that we could obtain from the Prussian government for a thing of such great public interest a sum of ———— [left blank] for fifteen or twenty years without interest, by way of subsidy. In a word there are different ways of looking at and realizing this affair. But here again one must strike while the iron is hot, and I count sufficiently on your profound sagacity to be persuaded that within two or three days you will be on the road to Paris, meditating in advance how you will make a success [of this great affair] . . .

The project did not go through at once, as Sassenay hoped, for Rothschild would not co-operate. Nevertheless, Sassenay kept the plan at hand, and in 1852–1853 the time seemed right. The assistance of Rothschild was still out of the question, for the Oppenheims were at that very time engaged in promoting the Bank of Darmstadt with the assistance of the Crédit Mobilier and in direct opposition to the House of Rothschild. But other "powerful financial support" was found in the person of André Koechlin, whose other business with the Oppenheims has already been related.

The Société des Glaces d'Aix-la-Chapelle was organized in December 1852 and authorized by the King of Prussia on the first day of January 1853. The capital was set at 2,000,000 thalers (7,500,000 francs); Koechlin was the first chairman; Sassenay, general manager. As he had proposed, the plant—complete with a town for workers including school, church, and hospital—was constructed by the founders and turned over to the company at a price "agreed" upon in advance. The plant was then leased to Saint-Gobain, which imported its own skilled workers to train the native population.[121]

[121] *JCF*, XII (1853), 920–21; XVIII (1859), 593.

VII

It is impossible to make a quantitative statement that will accurately represent the contribution of France to the industrialization of Germany. Comprehensive and accurate statistical data are not available even for such elementary indicators as the amount of French capital invested in Germany or the proportionate share of French firms in German industrial output. Even if such data were available they would not answer the really important questions: What and how much did German workmen, engineers, and entrepreneurs learn from the Frenchmen in their midst? To what extent did the competition of Frenchmen on German soil stimulate the Germans to greater industry and ingenuity? How far and how fast would German industry have progressed in the absence of French examples as well as French capital? Nor should the contribution of British, Belgian, Dutch, and Swiss entrepreneurs and investors be lost from sight; the effect that they had on the degree and direction of German industrialization was similar to that of France, but their presence makes the problem of isolating French influence even more difficult. Nevertheless, it is necessary at least to attempt an answer, both to the statistical questions and to those requiring a judgment of intangibles.

In the coal industry the total output of the Zollverein rose from about 3,000,000 tons in 1840 to more than 26,000,000 in 1870; Prussia alone produced more than 23,000,000 in the latter year, of which roughly one half came from the Ruhr.[122] In quantitative terms the contribution of French firms was relatively small. French capital was invested in at least seven of the more than two hundred Ruhr coal firms; in addition, several metallurgical firms in which there was French capital also owned coal mines. It is likely that in 1870 all German coal mines in which there were French interests produced at least 1,000,000 tons, but probably not more than 1,500,000—that is, roughly 5 per cent of the total German output.[123]

[122] *Annalen des deutschen Reichs,* 1876, p. 1062; *ibid.,* 1877, p. 1055; Spethmann, *Ruhrgebiet,* II, 373.

[123] The "Rhine-Elbe" mines, from zero output in 1860, exceeded 350,000 tons in 1873; production in 1870 was probably close to 200,000 tons. The "Graf Beust" and "Carolus Magnus" mines, owned by Phoenix, had a combined output of 200,000 tons as early as 1858. Both the Silesian Zinc Company and Vieille Montagne had German coal mines producing about 50,000 tons each by 1870.

The production of pig iron and direct castings in Germany increased by 700 per cent between 1840 and 1870—from 180,000 to 1,260,000 tons.[124] The "French" share was larger than in the case of the coal industry, but issued almost entirely from the blast furnaces of a single enterprise, the great integrated concern that resulted from the merger of Phoenix and the Rhine Mining and Metallurgical Company and produced one sixth of the total Prussian blast furnace output in 1855.[125] Unfortunately, production figures are not available for other years. Certainly the same proportion was not maintained, but as late as the end of the century Phoenix still produced 4 per cent of the total *German* output.[126] No production figures are available for the other French firms in the iron and steel industry, but it is unlikely that their combined production was of great importance. On the other hand, the Rhenish Steelworks, which was not yet in production when the Franco-Prussian War broke out, established itself as one of the great firms in the industry before the end of the century.[127]

The German copper industry was small, production fluctuated widely, and statistical information is unreliable. Production of copper ore in the Rhineland and Westphalia averaged about 50,000 tons in the 1860's. Production of raw copper in 1862 came to 804 tons; in 1863, to 1,323 tons; and in 1864, to 897 tons.[128] The Rhine Copper Mining and Smelting Company produced in 1864, the only year for which a figure is available, 83 tons of raw copper,[129] or slightly less than 10 per cent of the total for West Germany, the main producing district. Data for other firms with French interests are lacking, but it is possible that altogether they may have accounted for as much as 20 per cent of the total output.

Production data for the lead industry are but slightly better. The Bonn mining district was the principal producer; its output of crude lead rose from 5,700 tons in 1852 to 22,000 in 1864; in the latter year the total Prussian output was 25,000 tons.[130] The Stolberg and Westphalian Company was far and away the leader. Its production in 1853, before

124 Beck, *Geschichte des Eisens,* IV, 696; V, 254; *Annalen des deutschen Reichs,* 1876, p. 1062. The figure for Luxemburg must be subtracted from that of the Zollverein to get the German output.

125 See above, p. 300.

126 8,029,000 tons for all of Germany in 1899, 303,382 for Phoenix in 1898/99 (fiscal year). The same proportion held in 1901/02. Cf. Stillich, *Eisen- und Stahlindustrie,* p. 179.

127 Beck, *Geschichte des Eisens,* V, *passim.*

128 Hocker, *Grossindustrie Rheinlands und Westfalens,* pp. 294, 411.

129 *Ibid.,* p. 411.

130 *Ibid.,* p. 417.

purchase of the Ramsbeck properties, amounted to two thirds of the total for the Bonn district; in 1864 it accounted for 45 per cent of all Prussian lead production.[131]

Production of raw zinc in Germany in 1840 amounted to about 11,000 tons, of which 90 per cent came from Upper Silesia.[132] In 1864, the year for which data are most nearly complete, Germany produced 60,000 tons of zinc: 36 per cent in the Rhineland and Westphalia, the remainder in Upper Silesia. In the West the German properties of Vieille Montagne accounted for 11,000 tons, the Stolberg and Westphalian Company for more than 6,000, and the minor companies—all but one French-controlled—for the rest. In Upper Silesia, the Silesian Zinc Company produced directly more than 20 per cent of the output of that area and controlled a much larger share through its marketing agreements.[133]

Attempts to calculate the amount of French capital in German industry are even more susceptible to error than estimates of physical production. Nevertheless, the data on the firms listed in the Appendix of this article suggest that perhaps 150,000,000 francs had been invested in these enterprises by Frenchmen by midsummer of 1870.[134] If 50,000,000 be allowed for French investments in other industries (railways, textiles, chemicals, etc.)[135] and for undetected investments in the industries covered, the result is the sum of 200,000,000 francs invested by France in Germany previous to the Franco-Prussian War. Assuming that the error is not greater than 50 per cent one way or the other, what is the significance of the figure? Previous to June 30, 1870, there had been formed in all of Prussia (area of 1876—that is, including the former Kingdom of Hanover and several smaller states absorbed in 1866) 418 joint-stock companies with a combined capital of four billion francs.[136] This does not, of course, represent the total investment in

131 *Ibid.*, p. 418. The proportion had been higher in earlier years.

132 *Ibid.*, p. 414; Wiese, *Geschichte der Rohzinkfabrikation*, p. 192.

133 *Ibid.* In 1888 French-controlled firms produced directly 50 per cent of the total European production of 271,000 tons of raw zinc, although France itself had a negligible proportion. Indirectly, the French controlled a still higher proportion. Cf. *Vieille-Montagne à l'Exposition universelle*, p. 47.

134 Zinc and lead, 58,000,000; insurance and banking, 40,000,000; iron and steel, 20,000,000; coal, 19,000,000; glass, 10,000,000; copper, 3,000,000.

135 The first machinery factory in Saxony was set up at Chemnitz by an Alsatian in 1857; a French company with a capital of 2,000,000 francs owned a slate quarry in Bavaria; although it was scarcely an industrial enterprise, the spa at Ems, from which issued the telegram that spelled the fate of the Second Empire, was leased to a French company capitalized at 3,000,000 francs.

136 *Annalen des deutschen Reichs*, 1876, p. 892.

German industry; it refers only to Prussia, and even within Prussia there were many small industrial enterprises that were not in the form of joint-stock companies. On the other hand, Prussian industry accounted for by far the larger part of the German total, and there were among those joint-stock companies several that cannot be considered as industrial undertakings.[137] Moreover, by no means all of the companies formed were still in existence in 1870; 1,275 companies had been registered in Prussia to January 1, 1875, but only 510 were in existence on that date.[138] If, therefore, it is assumed that four billion francs is a fair estimate for the total capital employed in German industry in 1870, one can say that France contributed approximately 5 per cent of that total. (By the same reasoning, if the total investment is estimated to be closer to five billion, but the figure for French investments is allowed to stand, then the French contribution is 4 per cent. And so on.)

A more meaningful estimate of the contribution of French capital to German industrialization could be had by using only the sectors of heavy industry and finance as the basis of the estimate, as it was these sectors that led the way and provided the impetus for Germany's industrial revolution. There were on January 1, 1875, 222 joint-stock companies with a total capital of approximately 1,750,000,000 francs employed in the mining, metallurgical, metalworking, banking, and insurance industries in Prussia.[139] By far the greater part of these had been created in the four and a half years following the outbreak of the Franco-Prussian War, but to allow for enterprises that had not adopted the corporate form and for those in the other German states, an estimate of one billion francs would not be far from the mark as representing the capital employed in those industries in 1870. Comparing this with the figure previously given for French investments in those industries, it would appear that France contributed 15 per cent of the capital in the key German industries. But, in order to guard against exaggeration and overestimation, let it be assumed that French investments in these industries came to no more than 100,000,000 francs; France still contributed 10 per cent of the capital to the industries that made possible three German invasions of France in two generations.

Whatever validity may be granted these rough estimates, it will be readily agreed that they alone do not tell the whole story. The long-run contribution of France to German industrialization must be judged on

137 For convenience, I include railways and banks with "industrial enterprises."
138 *Annalen des deutschen Reichs*, 1876, p. 892.
139 *Ibid.*, p. 640.

a guess as to how far and how fast German industry would have developed if the waters of the Atlantic Ocean had washed the shores of Luxemburg, the Saar, and the Black Forest, and that depends not alone on material factors and measurable phenomena. There is no doubt that Germany drew heavily on the leadership, experience, and skills of the more advanced industrial nations. On this point the words of a German scholar may be offered in evidence: "Without foreign participation, which came not only in the form of capital but also and especially as intelligence and experience, western Germany could scarcely have achieved its prodigious development at that time." [140]

French scientific and technical education in the first half of the nineteenth century was the best in the world, and French engineers were in great demand—then, and for several decades thereafter—throughout Europe and overseas for conducting mining operations, digging canals, building roads, bridges, and railways, and for many other operations. The English had pioneered in the development of the steam engine, the railway, and many other technical features of the industrial revolution, but in spreading these new devices to the rest of Europe the French were quite as active as the English.[141] Moreover, French business organization, managerial and accounting practices, and the like, were widely copied throughout Europe. The French models for insurance companies, banks, limited-liability laws, and so on, were followed on the Continent far more often than the British. The skilled glassworkers that Saint-Gobain sent to Stolberg, engineers like Aubin de Jaurias and Ferdinand Rohr, executives of the type of Saint-Paul de Sinçay and Louis Hess, promoters and financers like Koechlin, Laveissière, and the directors of the Crédit Mobilier, men such as Sassenay and Detillieux, who combined several functions—each left his mark on German industry and each, in turn, was imitated by his German counterparts. As one French scholar picturesquely put it, "the yeast that caused the heavy Germanic dough to rise was foreign influence, intellectual as well as material." [142]

To be sure, the Germans were facile pupils, and were prepared to

140 Krüger, *Kölner Bankiergewerbe,* p. 20.

141 Camillo di Cavour, acting as a private citizen and as a director of the first chartered railway in Piedmont, was charged with obtaining the services of a chief engineer in 1850. Regarding the choice between French and English—in his opinion, there were no other alternatives—he wrote that "we preferred a French to an English engineer for the simple reason that the English are *bourreaux d'argent* [i.e., spendthrifts] and even at that we could not get a passable man except for an outrageous price." A. Bert, ed., *C. Cavour: Nouvelles lettres inédites* (Turin, 1889), p. 387.

142 Bénaerts, *Industrie allemande,* p. 334, quoting P. Boissonade.

accept—for a time—the leadership of the French and other nationalities. The generation of West Germans that came to maturity after 1830 had been born and reared—many of them—as French citizens or in a predominantly French atmosphere during the Napoleonic domination. Most of the businessmen spoke and wrote French with ease, and many of them had studied or traveled in France. Thus French influence would not have been lost to Germany even if the French themselves had stayed at home and invested their money in their own country. As it was, Germans took over technical direction of some French enterprises as early as the 1850's; in the 1860's they began to take over financial control as well. After 1870, although much foreign capital—English and Belgian as well as French—remained in German industry, it no longer had a commanding voice.

Yet another conclusion emerges from this study, but it raises problems that cannot be settled within the framework of the present article. Whatever the factors that are assigned as causes for the poor showing of French entrepreneurship in the twentieth century, it can scarcely be maintained in the light of the evidence presented here that those factors were characteristic of France in the middle decades of the nineteenth century. When the record of French enterprise in Germany is placed beside its achievements during the same period in railways, banks, and industrial enterprises of all sorts in Italy, the Austrian Empire, Spain and Portugal, Russia, the Ottoman Empire and Egypt, Switzerland, Belgium, Holland, and even England,[143] it is apparent that the Frenchmen of that epoch, far from being laggards in the field of business enterprise, were among the world's foremost entrepreneurs of that and all other times.

Why, then, did France fall behind in industrial development after 1870? It is, of course, impossible to enter here into a full discussion of that question.[144] Among the more important factors which previous discussions have suggested are the low rate of population growth; inheritance laws that led to fragmentation of agricultural land and hindered the movement of the population from agricultural to industrial

143 Cameron, *French Foreign Investment;* "The Crédit Mobilier," *JPE,* LXI (1953), 461–88; "L'exportation des capitaux français," *Revue d'histoire économique et sociale,* XXXIII (1955), No. 3.

144 There are several discussions in the literature. See, e.g., S. B. Clough, "Retardative Factors in French Economic Development in the Nineteenth and Twentieth Centuries," The Journal of Economic History, VI (1946), Supplement, pp. 91–102, and David S. Landes, "French Entrepreneurship and Industrial Growth in the Nineteenth Century," *ibid.,* IX (1949), 45–61.

employment; a strongly protectionist tariff policy for most of the nineteenth century, which also hindered the transfer of capital and labor from areas of low to areas of high productivity; the costly and cumbersome apparatus of the French state—its large bureaucracy, its omnipotent and ubiquitous interferences, its arbitrary and inefficient fiscal system; the loss of Alsace and Lorraine in 1871; and the relative scarcity of coal and other industrial raw materials.

The evidence of this article bears on only one of those factors, but it is quite clear that the original motive for French investment in, and development of, the German nonferrous-metals industries was the desire to supply the French market, which made demands far in excess of the domestically available sources of raw materials. The evidence is less compelling on the reasons for French investment in German coal, but it is almost certain that here, too, the shortage of natural resources was of great importance. It has been pointed out many times that the ratio of exploitation to known resources of coal was much higher in France than in any other industrial nation. In spite of this, France was dependent on imports for a very large part of its annual coal consumption, although transportation costs decreed that most of the imports should come from Belgium, where the French had also made large investments, and from Britain. (Even for Britain, there is at least one documented case of French-owned coal mines.)[145] Given the location of coal deposits, the economics of industrial location are such that ironworking will, as a rule, be located there also.

The major technological innovations of the second half of the nineteenth century were in the heavy industries and others that also relied extensively on power minerals and the basic metals. These were precisely the industries in which France had the greatest natural handicaps.[146] It was, therefore, not merely in keeping with tradition or love of *luxe* that France should have continued to specialize in the production of commodities requiring large proportions of skill, design, and individuality relative to the value of raw materials; it was rational on strictly economic grounds. To see the fruits of French enterprise in the

[145] The Compagnie houillière de Graigola-Merthyr, established in 1875 with a capital of 7,000,000 francs. Its legal seat was in Paris, its three coal mines and a briquette factory in South Wales. (Bourse de Paris, *Annuaire,* 1880, pp. 992–93.)

[146] This was recognized as early as 1850 by a no less astute and well-informed observer than Richard Cobden, who remarked that "as merchants the English are much superior to the French; but as manufacturers the French are quite our equals. If the French had the same natural advantages that we have, they would have done and could do all that we have." *Le monde des affaires de Louis-Philippe au plan Monnet* (Paris, S.E.D.E., 1952), p. 20.

heavy industries, it is not in France that one should look, but abroad—and especially in Germany.

RONDO E. CAMERON, *University of Wisconsin*

APPENDIX

French Enterprises in Selected German Industries, 1840–1870 [1]

I. Zinc and Lead

1. Aachen Mining Company (Société des Mines d'Aix-la-Chapelle, Riessel, Hurvey et Cie), Eilendorf, near Aachen. (Also iron mining and smelting.)
   Capital: 5,500,000 francs (until 1858); 4,500,000 (1858–69).
   Per cent French: probably 100%.
   Remarks: Probably founded in the 1840's; reorganized in 1858 by Louis-Prosper Grillon; again reorganized by Grillon's son and renamed the Eilendorf Mining and Blast Furnace Company in 1869.
   Source: *L'industrie,* VII (1858), 765; *JCF,* XXVIII (1869), 644.
2. Alliance Mining and Foundry Company (Allianz A.G. für Bergbau und Hüttenbetrieb, S.A. des Mines et Fonderies de l'Alliance), Stolberg.
   Capital: 2,000,000 francs (1846–54); 4,000,000 (1854–56).
   Per cent French: 50%–70% (?).
   Remarks: Founded as a *commandite* in 1846; transformed into an *anonyme* in 1849; liquidated in 1856. French directors were J. F. Laveissière, Ernest David, and Baron Seillière. J. F. Piot was general manager after 1851.
   Source: Historisches Archiv, Cologne, Nachlass Mevissen; Krüger, *Kölner Bankiergewerbe,* pp. 51, 164.
3. Antonius Mining Company (Société de l'Antonius et des Mines Réunies, Ch. Rochez et Cie), Cologne.
   Capital: 2,000,000 francs.
   Per cent French: 100%.

[1] The following list is subject to numerous errors and omissions, even for the industries covered. Only industries mentioned in the text are listed here, although French investments in others, such as railways, textiles, chemicals, etc., were by no means negligible. Where a figure for French participation is given, it is based on explicit evidence in the sources, unless accompanied by a question mark or the words "probably" or "about"; then it is a guess based on the evidence available, such as the number of French shareholders, the nationality of the officers or directors, the markets the shares were traded on, etc.

Remarks: Founded in 1845; liquidated and assets transferred to Rhenish Prussian Zinc Mining and Foundry Company in 1852. Rochez and J. A. Telle were sole original partners.

Source: *VM,* contract and statutes of Rhenish Prussian Company, 20 August 1852; *JCF,* V (1846), 744.

4. Baden Zinc Company (Badische Zinkgesellschaft), Mannheim.

Capital: 3,000,000 francs.

Per cent French: probably ca. 16%.

Remarks: Founded 1856; one of founders was J. J. Raquet, a Paris metals merchant. Also some Belgian capital.

Source: Krüger, *Kölner Bankiergewerbe,* pp. 164–65.

5. Eschweiler Mining and Foundry Company (Eschweiler Gesellschaft für Bergbau und Hütten, S.A. des Mines et Fonderies d'Eschweiler), Eschweiler, near Aachen.

Capital: 4,875,000 francs (1847–55); 5,625,000 francs (1855–73).

Per cent French: 75% or more at origin; reduced to about 40% after 1855.

Remarks: Founded in 1847–48 by Charles Gosselin (president), J. F. Laveissière, Ernest David, and Léon Letrange-David; Adolphe Charlier, general manager. In 1853 it obtained a loan of 2,250,000 francs from Oppenheim's, and in 1855 it was reorganized by Oppenheim's and other German interests. Merged with Holzappel Company in 1873 to form Rhine-Nassau Mining and Foundry Company.

Source: Opp. Hausarchiv, Cologne; Krüger, *Kölner Bankiergewerbe,* p. 164.

6. Holzappel Lead and Silver Mining Company (Holzappeler Blei- und Silberbergwerksgesellschaft), concessions in Nassau.

Capital: 2,000,000 francs.

Per cent French: 70%.

Remarks: Founded in 1853 by Ernest David, J. F. Laveissière, Baron Seillière, and Jules Joest (Cologne). Merged with Eschweiler Company in 1873.

Source: Fould Notarial Archives, Paris; Opp. Hausarchiv, Cologne.

7. Nassau Mining Company (Société des Mines de Nassau), legal seat in Paris, mines in Nassau, Baden, and Prussia. (Also silver and coal.)

Capital: 1,000,000 francs (1845–47); 3,000,000 francs (1847–52).

Per cent French: 100%.

Remarks: Founded by Charles Leconte as a *commandite* in 1845; transformed into an *anonyme* in 1847; merged with Rhenish Prussian Company in 1852.

Source: *JCF,* VI (1847), 884; VII (1848), 140; IX (1852), 944–45.

8. Rhenish Prussian Zinc Mining and Foundry Company (Société des Mines et Usines à Zinc de la Prusse rhénane, Saint-Paul de Sinçay et Cie), Cologne.
   Capital: 3,750,000 francs.
   Per cent French: 98%.
   Remarks and source: see text, pp. 292, 294–95.
9. Rhenish Westphalian Mining Union (Rheinisch-Westfälischer Bergwerksverein), Arnsberg; mines near Ramsbeck and Meschede.
   Remarks and source: see text, p. 288.
10. Silesian Zinc Mining and Foundry Company (Schlesische A.G. für Bergbau- und Zinkhüttenbetrieb, S.A. des Mines et Fonderies de Zinc de la Silésie).
    Remarks and source: see text, pp. 292, 293.
11. Stolberg and Westphalian Mining, Lead, and Zinc Manufacturing Company (A.G. für Bergbau, Blei- und Zinkfabrikation zu Stolberg und in Westfalen, S.A. des Mines et Fonderies de Plomb et de Zinc de Stolberg et de Westphalie).
    Remarks and source: see text, p. 285.
12. Vieille Montagne (Société des Mines et Fonderies de Zinc de la Vieille-Montagne), legal seat in Liège, administrative offices in Paris, German properties in Nassau, Baden, and Prussia.
    Capital: 12,663,000 francs (capital invested in Germany only, based on market value of VM stock exchanged for German properties at time of purchase, and actual expenditures for expansion in Germany to 1870).
    Remarks and source: see text, p. 290.

II. Copper

1. Bonn Metallurgical Company (Société métallurgique de Bonne).
   Remarks and source: see text, p. 295.
2. Heidberg Mining Company (Société des Mines de Heidberg), legal seat in Paris.
   Remarks: The Alsatian Baron Waldner de Freundstein was general manager (*gérant*); four of seven directors resided in Paris. See text, p. 295.
3. Marienberg and Bensdorf Mining and Smelting Company (Société des Mines et Usines de Marienberg et Bensdorf), near Coblenz.
   Capital: 3,750,000 francs authorized; 1,500,000 issued in 1853.
   Per cent French: 75%–90% (?).
   Remarks: see text, p. 295.
4. Rhine Copper Mining and Foundry Company (A.G. für Rheinischen Bergwerks und Kupferhüttenbetrieb, S.A. des Mines et Fonderies de Cuivre du Rhin), Linz, near Cologne.

Capital: 3,750,000 francs authorized, 50% issued; 562,500 francs in bonds issued in 1854.
Per cent French: 90%.
Remarks: see text, p. 16.

5. Westerwald-Rhine Mining Company (Westerwald-Rheinische Bergwerks-Gesellschaft, Aug. Eyckholt et Cie), Cologne.
Remarks: Founded in 1853 by Belgian, German and French (Ed. Blount et Cie, Paris) capitalists. Liquidated, 1861.
Source: Krüger, *Kölner Bankiergewerbe,* pp. 165–66.

III. Coal

1. Gelsenkirchen Mining Union (Gelsenkirchener Bergwerksverein, Detillieux frères et Cie). See text, p. 305.
2. Hardenberg Mining Company (Hardenberg Bergwerksgesellschaft, S.A. des Mines de Hardenberg). See text, p. 305.
3. Herne-Bochum Mining Company (Société des Mines de Herne-Bochum).
Capital: 1,000,000 francs.
Per cent French: 98%.
Remarks: Organized in 1863; reorganized in 1875 as a Belgian company, but the chairman, all directors, and all but three stockholders were French.
Source: *JCF,* XXIII (1864), 587; *Moniteur belge* (*Annexe*), 13 June 1875, pp. 411–12.
4. Mengede Coal Company (Mengeder Bergwerks-Aktiengesellschaft).
Remarks: A French company, A. Boucard et Cie, sold out to a German syndicate in 1873.
Source: Krüger, *Kölner Bankiergewerbe,* p. 156.
5. Northern Coal Company (Société des Charbonnages du Nord).
Remarks: Organized by a Franco-Belgian group in 1856 for exploitation of the "Nordstern" mine; sold in 1873 to a German syndicate, which organized a new company with a capital of 1,300,000 thalers.
Source: Spethmann, *Ruhrgebiet,* II, 282; Krüger, *Kölner Bankiergewerbe,* p. 155.
6. Ruhrort Coal Company (Société des Charbonnages de Ruhrort).
Remarks: Organized in 1854 by an Anglo-French group; owned the "Westende" mine. (Henderson, *Industrial Europe,* p. 156, erroneously states that the founding group was entirely English and that the mine "was taken over by a French firm in 1870"; in fact, the French participated from the beginning.)
Source: *L'industrie,* V (1856), 462.
7. Steinkohlen Gruben Berghaupten A.G.
Capital: 500,000 francs.
Remarks: Mentioned by Bénaerts, *Industrie allemande,* p. 350.

IV. Iron and Steel

1. Eilendorf Mining and Blast Furnace Company (Société des Mines et Hauts-fourneaux d'Eilendorf). See Zinc and Lead—Aachen Mining Company.
2. Phoenix Mining and Metallurgical Company (Phönix A.G. für Bergbau- und Hüttenbetrieb, S.A. des Mines et Fonderies du Phénix). See text, pp. 296–97.
3. Rhenish Steel Company (S.A. des Aciéries rhénanes, Rheinische Stahlwerke A.G.). See text, p. 305.
4. Rhine Mining and Metallurgical Company (Société des Mines et Fonderies du Rhin, Charles Detillieux et Cie, Rheinische Gesellschaft für Bergbau- und Hüttenbetrieb). See text, pp. 296–97.
5. Tegernsee Mining and Blast Furnace Company (S.A. des Mines et Hauts-fournaux de Tegernsee), Munich.
   Remarks: Organized in 1854 with administrative offices in the banking firm Gautier-Lamonte, Boucher et Cie, Paris. It owned extensive concessions for coal, iron, and lead mines, and operated two blast furnaces.
   Source: *JCF,* XXII (1863), 828.

V. Glass

1. Aachen Glass Company (A.G. der Aachener Spiegelmanufaktur, S.A. des Glaces d'Aix-la-Chapelle), Stolberg, near Aachen. See text, pp. 307–8.
2. Bicheroux, Lambotte et Cie, Herzogenrath.
   Remarks: According to Bénaerts, *Industrie allemande,* p. 367, one half the capital of this company was owned by Saint-Gobain.
3. Waldorf Glass Company, Waldorf, near Mannheim.
   Remarks: Mentioned by Bénaerts, *ibid.,* as being wholly owned by Saint-Gobain. Established in 1858.

VI. Insurance and Banking

1. Bank für Handel und Industrie in Darmstadt (Darmstädter Bank).
   Capital: 25,000,000 florins (53,750,000 francs), of which 40% was issued in 1853, the remainder in 1856. The authorized capital was doubled in 1857, but its issue halted owing to the financial crisis of that year. The capital was subsequently raised several times.
   Per cent French: 65.45% of the original issue; about 40% of the second issue; French interests were still substantial after the Franco-Prussian War. None of the directors were French, although the syndicate

charged with underwriting the shares had a French majority. Louis Hess, one of the first managers, was a former employee of the Crédit Mobilier.

Source: Cameron, "Founding the Bank of Darmstadt," Explorations in Entrepreneurial History, VIII, 113–30.

2. Allgemeine Deutsche Creditanstalt, Leipzig.
   Remarks: Founded 1856; the French silk magnate, Arlès-Dufour, was a director. See text, p. 306, n. 115.
3. Berliner Handelsgesellschaft, Berlin.
   Remarks: Founded 1856; Baron James de Rothschild was a director. See text, p. 306, n. 115.
4. Prussian Central Land Bank (Preussische Centralboden Kredit A.G., Crédit Foncier Central de Prusse), Berlin. See text, p. 306.
5. Cologne Fire Insurance Company ("Colonia," Kölnische Feuerversicherungs-Gesellschaft). See text, p. 306.
6. Cologne Reinsurance Company (Kölnische Rückversicherungs-Gesellschaft). See text, p. 306.

The Locofocos: Urban "Agrarians"

I

MOST students of Jacksonian America are familiar with the Locofocos of New York through the interesting and informative history of the party which its secretary, Fitzwilliam Byrdsall, published in 1842.[1] But Byrdsall himself was primarily interested in the antimonopoly features of his party's program, and therefore his history all but ignores the even more significant monetary policy of the Locofocos. At the present time in historical writing, it is fashionable to emphasize the role played by the Jacksonian movement as a whole in liberating the expanding American economy from the fetters of a dying mercantilistic approach to business enterprise.[2] There is much to be said for such an interpretation. But the Jacksonians faced toward many meccas, and one of the most articulate and widely known groups which rallied around the Jackson standard—the Locofocos—cannot be trimmed to this pattern.

While the antimonopoly planks of the Locofocos are quite in keeping with the antimercantilistic or "liberating" interpretations often applied to the Jacksonians, the party's monetary principles point in precisely the opposite direction. It is the Locofocos' monetary views which most clearly reveal that the group was not a part of the expansionist pattern currently alleged to be characteristic of the Jacksonian movement. The activities of two Locofoco Assemblymen in the New York legislature of 1837 spell out in unmistakable terms the lack of concern the Locofocos and other hard-money Jacksonians felt for the needs of an expanding economy.

Robert Townsend, Jr., and Clinton Roosevelt were well-known leaders of their party when, with the aid of the Whigs, they were elected to the Assembly in 1836. Townsend, a carpenter by trade, had been active in the General Trade Union Convention of 1834.[3] He

[1] F. Byrdsall, *History of the Loco-Foco, or Equal Rights Party* (New York: Clement and Packard, 1842).

[2] See, for example, Fritz Redlich, *Molding of American Banking* (New York: Hafner Publishing Company, 1951), Part I, Chaps. vi and vii; Richard Hofstadter, *American Political Tradition* (New York: Alfred A. Knopf, 1948), Chap. iii.

[3] John R. Commons *et al.*, *History of Labour in the United States* (New York: Macmillan Company, 1926), I, 427–29.

became associated with the Locofocos in June 1836, after a protest meeting by the party in support of several workers who had been convicted for striking. Roosevelt was a lawyer by profession and an economist and newspaper editor by avocation. In 1833 he published a pamphlet urging the elimination of the Banking System, as he called it, because it raised prices and thereby permitted foreign goods to evade the protective tariff.[4] He was also the editor of the Locofoco paper, *Democrat,* which began to appear in 1836.

Though this was the first term which either man served in the legislature, both were active in behalf of their Locofoco principles.[5] Two days after the session opened Roosevelt offered a resolution demanding the formation of a select committee to investigate the banking situation in New York, a move in which he was supported by a petition from his Locofoco constituents.[6] This first effort to inject Locofoco monetary doctrine into the Assembly, however, garnered no results.

Prevented from airing their views on monetary matters, the two Locofoco Assemblymen consistently registered their opposition, in true Locofoco fashion, to the granting of special privileges through acts of incorporation. Again and again they were lone dissenters in votes to incorporate railroad, bridge, or turnpike companies.[7] Insurance companies did not carry the same opprobrium, it would seem, for both voted for them. They also supported the incorporation of schools, a quasi-labor organization (The Tailoresses' and Seamstresses' Benevolent Society in the City of New York), and other cultural and educational enterprises. Townsend, probably cautious after the widespread failures which followed in the wake of the devastating fire of 1835, consistently

[4] *The Mode of Protecting Domestic Industry, consistently with the desires Both of the South and the North, by operating on the Currency* (New York: McElrath and Bangs, 1833). As will appear later, Roosevelt ultimately succeeded in making these views a part of official Locofoco doctrine.

[5] Joseph Dorfman in his *Economic Mind in American Civilization* (New York: Viking Press, 1946), p. 652, has Roosevelt serving in the 1835 session. This is incorrect and results from confusion between Clinton Roosevelt, who served only in the 1837 legislature, and James J. Roosevelt, who was a member of the 1835 legislature. As a consequence, Dorfman's summary of Roosevelt's activities in the session is in error.

[6] *Journal of the Assembly of the State of New York, Sixtieth Session,* 1837, p. 41; Byrdsall, *History of the Loco-Foco . . . Party,* pp. 114–15.

[7] See *Journal, Sixtieth Session,* 1837, pp. 405–6, 734, 736, 754–55, 910–11, 912–13, 916, 919, 949, 955, for instances of such negative votes. One feature of the chartering of the bridge companies, for instance, which undoubtedly aroused opposition from Roosevelt and Townsend was the granting of monopoly privileges for one mile on either side of the bridge. Both men supported the incorporation of the Lenox Basin and Chenango Canal Turnpike Company, which involved no exclusive privilege provision and also provided that at the termination of the corporation the road was to revert to the public. Chap. 244, *Laws of the Assembly of the State of New York passed at the Sixtieth Session.*

voted against incorporation of fire insurance companies. Roosevelt, however, seems to have had no such scruples.[8]

This attitude on the part of the two Locofoco legislators is in accord with the general philosophy regarding corporations and "monopolies" usually associated with the "left wing" of the Jacksonian movement. William Leggett, sometimes taken as the spokesman of the Locofoco group in New York although he was never a member of the party, frequently wrote against the granting of exclusive privileges to corporations. As a matter of fact, in implementing his laissez-faire philosophy, he advocated the abolition of all legislatively imposed restrictions upon free entry into business.[9] William Gouge, another talented representative of the Jacksonian left wing, however, placed his emphasis more upon the menace of banks and paper money than upon the threat of monopolistic corporations.[10]

While in the Assembly Townsend and Roosevelt seem to have placed their emphasis where Gouge did, for their main concerns were banking and currency. A resolution instructing the banking committee to report unfavorably upon all applications for bank charters brought ready support from the two Locofocos,[11] but, after five days of argument, the resolution was defeated 70–50.[12] Actually, as the large number of supporters indicates, the measure did no more than question the wisdom of chartering additional banks during a highly speculative period. Neither the banking system nor paper money were in any way threatened. As a consequence, fired by a basic opposition to banks of issue, the two Locofocos now pushed for more drastic measures.

Toward the end of January, conscious that his original resolution calling for an investigation of the state banking system was not bearing fruit, Roosevelt moved for a new inquiry. This time the investigation

[8] See *Journal, Sixtieth Session,* 1837, pp. 503, 538, 602, 810, 811, for instances of Townsend's solitary dissents from the Assembly on fire insurance companies' incorporations.

[9] See especially Richard Hofstadter, "William Leggett, Spokesman of Jacksonian Democracy," *Political Science Quarterly,* LVIII (December 1943), 581–94, and the *Collection of Political Writings* of Leggett, edited by his friend Theodore Sedgwick and published in 1840. Writers who stress the laissez-faire and even antilabor attitudes of Leggett when he opposed trade unions as characteristic of the Locofocos ignore the party's *Report and Constitution . . . of the Democratic Party* of 1836, in which the Locofocos specifically recognized unions as necessary for the protection of workingmen.

[10] William Gouge, *A Short History of Paper Money and Banking* (Philadelphia, 1833), Part I, p. 45.

[11] This was orthodox Democratic doctrine rather than extreme Locofocism. As early as 1834 Governor Marcy had called attention to the large number of banks being chartered by the legislature and counseled restraint in view of the times. Charles Z. Lincoln, ed., *Messages from the Governors* (Albany, 1909), III, 476.

[12] *Journal, Sixtieth Session,* 1837, pp. 80–81.

was to examine the over-all economic situation, the constitutionality of paper money, the effect of paper money on trade, and, finally, the comparative merits of paper money and specie. The all-encompassing resolution evoked ridicule from the opposition for being comprehensive enough to include the whole field of economics. Undaunted, Roosevelt replied that such latitude was necessary in order to enable him to introduce his ideas on the subject.[13] The wide powers he asked for were not forthcoming, but a committee, with Roosevelt at its head, was authorized to inquire into the money situation.

On April 14 Roosevelt's committee reported its views on the currency and outlined the measures it thought "should be taken at the present session to reduce the amount of paper money in circulation."[14] The main purpose of the report was to show the evils resulting from a paper money system and the necessity of having only a specie currency. The sole way, the report concluded, in which the depreciation of the currency could be wholly checked was to have a medium of exchange with intrinsic value, such as gold or diamonds. In order to eliminate depreciated money, paper currency would have to be entirely withdrawn. Furthermore—and here Roosevelt echoed an argument reiterated by the hard-money men of the period—the "elasticity of a paper medium" was responsible for the "deep chasm of adversity" which followed each period of prosperity. Earlier William Gouge had called attention to the tendency of the banks to issue notes during speculative booms and to contract their loans and issues when the business tempo slackened, thereby further decelerating business activity. Now, Roosevelt and his committee, like other hard-money men, expressed their concern over the boom-and-bust character of the rocketing American economy.[15]

A metallic currency, the committee insisted, would act as a protection, not a hindrance, to American manufacturers. Working on the assumption of the quantity theory of money, the report contended that an excess of paper money inflated prices to the extent that foreign goods were able to circumvent our tariff and undersell the products of

[13] *New York Times,* January 30, 1837.

[14] The report can be found in *Documents of the Assembly of the State of New York, 1837,* No. 302. Cited hereafter as *Report.*

[15] Roosevelt's ideas as put forth in this report are very close to Gouge's and represent a much more detailed analysis and condemnation of the banking system than those put forth earlier in his pamphlet of 1833. Harry E. Miller, *Banking Theories in the United States Before 1860* (Cambridge: Harvard University Press, 1927), p. 8, observes that the new doctrines regarding banking prevalent in the early nineteenth century "stressed the fluctuations in the value of the monetary standards and bore fruit in discussion of the business cycle."

American labor.[16] Eliminate the paper currency, the report counseled, and manufactured goods will flow abroad instead of into the country.[17] Here was a convenient wedding of Whig tariff policy and extreme Democratic hard-money views.

Recognizing that paper money could not be abolished immediately, the report went on to recommend a gradual reduction in the amount in circulation. The legislature was urged to reduce the amount of currency in circulation by one third. But because such a contraction of the currency would work a hardship upon debtors, the report further recommended that debts should also be scaled down by one third in order to "correspond with the new value thus to be given the money." And finally, to ensure that the currency reduction would be meaningful, an effort was to be made to restrict the extension of bank credit in a like proportion.[18] The report, needless to say, was tabled.

This report was the major effort of the Locofocos in the Assembly,[19] and it was a concrete implementation of the principles of the party as a whole. In its 1836 Constitution, the Convention of the Locofocos had agreed to "unqualified and uncompromising hostility to bank notes and paper money as a circulating medium, because gold and silver is the only safe and constitutional currency."[20] Certainly those who recommended such a drastic cut in the circulating medium and a cancellation of one third of the outstanding debts were friends of neither business nor creditors. Even Gouge, an ardent hard-money man, hesitated to advocate such a Draconian curtailment of paper money. "If the Bank medium," he wrote in his famous book on banking, "should be suddenly reduced only one fourth, the fall of prices would be at least twenty-five percent., and universal embarrassment would be the consequence."[21]

In the war over the Bank of the United States, businessmen had been on both sides of the struggle. Speculators and wildcat bankers

[16] *Report*, pp. 14–15. This had been the main thesis of Roosevelt's pamphlet of 1833. The doctrine regarding the tariff was rather widely accepted by the Locofocos. See *Democrat*, May 4, 1836, for resolution passed at a Locofoco meeting accepting the principle; *Union* (the Trades' Union's newspaper), June 8, 1836, for labor's acceptance; and *New York Evening Post*, August 18, 1836, for an article, "By a Loco Foco," setting forth the doctrine as a tenet of Locofocism.

[17] *Report*, p. 22.

[18] *Ibid.*, pp. 27–28.

[19] Townsend was in full accord with Roosevelt, for he moved that five times the usual number of copies of the report be printed. *Journal, Sixtieth Session*, 1837, p. 975.

[20] Byrdsall, *History of the Loco-Foco . . . Party*, pp. 39–40.

[21] Gouge, *History of Paper Money and Banking*, p. 102.

had vociferously opposed the Bank because it successfully limited their inflationistic operations. More conservative businessmen and bankers, however, had recognized the advantages to be derived from a central bank of such power and efficiency and had strongly supported Nicholas Biddle's institution. Still other businessmen, like some in New York, had opposed the Bank because it rivaled their own state banking structure. But there were very few businessmen who opposed all banks as such. The drastically deflationary program of the Locofocos transcended the views of all factions of the business community and thereby constituted a threat to all of them. In this respect the Locofocos departed sharply from the expansionist pattern which modern writers have professed to find in the Jacksonian economic philosophy.

II

An analysis of the social composition of the party helps to explain how it was possible for the Locofocos to be at such variance with the prevailing business needs of the day. By means of a statistical analysis, the economic background of the party's supporters is made quite apparent. Generally, as Dixon Ryan Fox has demonstrated,[22] the poorer wards of New York City in the Jackson period voted Democratic. Since the Locofocos sprang from the Democratic ranks, little support for the party was to be expected in the wealthier wards. As Table 1 shows, the strength of the party lay in the poorer wards.[23]

The election returns of 1835 and 1837 give striking evidence of the appeal the Locofocos had for the poor and the mistrust which the party engendered among the wealthy. The Locofocos gained their highest percentages in the election of 1837 in the seven poorest wards, with the exception of the Twelfth, which went Democratic by 69 per cent of the vote cast.[24] Furthermore, a rank-difference correlation of the 1835 vote and the wealthy wards is decidedly negative—over

[22] Dixon R. Fox, *The Decline of Aristocracy in the Politics of New York* (New York: Columbia University, 1919), pp. 409–49.

[23] Statistics of wealth and election percentages computed from Edwin Williams, *The New York Annual Register . . .* for 1836 and 1837. The statistics of personal wealth are also published in Thomas F. Gordon, *Gazetteer of the State of New York* (Philadelphia, 1836). The total for personal estate in Williams is the same as that given in the 1836 Comptroller's "Annual Report," Table K, Document No. 5, *Documents of the Assembly of the State of New York, 1836.*

[24] The exceptionally high percentage for the Locofocos in the Tenth Ward is partially attributable to the fact that Alexander Ming, Jr., the indefatigable politician of the Locofocos, lived there.

TABLE I

Ward	*Per Capita Personal Estate in 1835*	*Locofoco % of '35 Vote for Congressman*	*Locofoco % of '37 Vote for Mayor*
1	$2,870	4	2
2	432	11	6
3	732	6	5
4	206	21	8
5	227	11	7
6	259	13	6
7	132	13	11
8	104	20	14
9	54	7	10
10	48	36	28
11	37	13	21
12	103	10	0.5
13	26	22	18
14	148	19	13
15	506	16	6

.50—all of which is to be expected when the economic implications of Locofoco doctrine are recognized.

The apparent tendency of the wealthier wards to oppose Locofoco candidates should not leave the impression that the leadership was drawn from the labor movement. When, years ago, William Trimble checked the names of Locofoco leaders against the index of Commons' *Documentary History of American Industrial Society,* he found only 23 names cited, and, of these, he says, only one half were of more than incidental importance in the labor movement of the time. Actually, only three—John Commerford, Levi Slamm, and Robert Townsend, Jr.—were prominent in both the Locofoco party and the trade unions.[25] There is no doubt that the party made appeals[26]—and genuine ones too—to labor, but that is an entirely different question.

An examination of the occupations of the known Locofoco leaders

[25] William Trimble, "Diverging Tendencies in New York Democracy in the Period of the Loco-Focos," *American Historical Review,* XXIV (April 1919), 399 n.

[26] For example, in June 1836, when a large mass meeting was held in City Hall Park to protest a court decision heavily fining eleven tailors for striking against wage cuts, Locofoco leaders like Ming, Byrdsall, James Stratton, and William Boggs were elected to the Committee of Correspondence set up by the meeting. (*New York Evening Post,* June 14, 1836, and *New York Times,* June 14, 1836.) Out of that committee came the suggestion for a state convention to form a new party. Of the 26 delegates elected from New York City to that convention, 15 were active members of the Locofoco movement prior to the meeting in the Park and 4 more became active Locofocos after the convention. List appears in the *New York Evening Post,* August 19, 1836. The constitution which the convention adopted clearly recognized—and only a year after the Geneva Shoemakers' case—the right of union organization as a legitimate workingmen's demand.

throws light on the social character of this group of Jacksonians. In Byrdsall's history of the party, 142 leaders' names are mentioned. Of these names 31 are not to be found in the directories. Ten additional names have no occupation listed for them, indicating either that no occupation was offered, or that the individual had retired. It is possible, however, to obtain occupational data for all the rest. The total breakdown appears as follows:

Not listed or not identifiable	31
No occupation listed	10
Artisans and mechanics	61
Physicians	9
Grocers	9
Lawyers	7
Government employees	4
Merchants	1
Manufacturers	1
Unclassified (includes 2 teachers, 2 druggists, a bathkeeper, 2 tobacconists, an architect, and an auctioneer)	9
	142

If the identifiable group (101 individuals) is used as the total, it is significant that 60 per cent of the leaders of the Locofocos were artisans and mechanics. The merchants together with the grocers make up about 10 per cent, while the physicians bulk larger in numbers among the leaders than those staunch representatives of economic conservatism —the lawyers. These observations, of course, are not meant to suggest that the Locofocos were primarily proletarian in leadership. Considering the stage of economic development of America in the Jacksonian period, it is naïve and unhistorical to look among the Locofocos for signs of "nascent proletarianism." [27] Moreover, the directories do not distinguish among employed, employing and self-employed craftsmen. Consequently, it is entirely possible that many leaders counted as artisans and mechanics were actually employers or self-employed.[28] That the leaders were predominantly small craftsmen, shop-owners, and workers, rather than lawyers, manufacturers and merchants, seems, from the evidence, indisputable. These little men of business and labor did not identify themselves with the larger business and banking community; they were not concerned with the measures necessary to expand the American economy. They considered themselves essentially

[27] Trimble, "Diverging Tendencies in New York Democracy . . . ," p. 401.
[28] The labor unions of the period, of course, often included employers in their ranks.

consumers who suffered from cheap money and high prices, and they saw no reason why an expanding currency which hurt the consumer, the worker, and the little shop-owner should be tolerated. Regardless of the undoubted constrictive effect upon the larger business community, these little men sought to control inflation by the drastic deflationary device of a metallic currency. It was for this precise reason that the Locofocos thought they saw champions in Andrew Jackson and his successor, Martin Van Buren.

III

The Locofoco defection from the ranks of the Democratic party in 1835 must be viewed as a part of the war upon the Bank of the United States, since the Locofocos were extreme Jacksonians, particularly so on matters of money and banking. Many leading Jacksonians on the national scene, like Jackson himself, Amos Kendall, Roger Taney, Thomas Benton, William Gouge, were committed hard-money men. As Jackson admitted to Biddle, "I do not dislike your Bank any more than all Banks." [29] To such men the destruction of the Bank of the United States as a quasi-governmental institution was only a skirmish in a broader war upon the banking and currency system of the time. And for this reason the veto of the Bank bill was followed by a series of executive orders and Congressional acts which attempted to decrease the amount of paper money in circulation. Small notes, at first below five dollars, and then below ten dollars, were declared not receivable for payment of government dues, and government depositories were denied the right to issue notes below five dollars.[30] The climax in Jackson's personal attempt to establish a metallic currency was his Specie Circular of July 1836.[31] Jackson's successor, Van Buren, fully supported by the

[29] Quoted in Redlich, *Molding of American Banking*, p. 164. Other authorities like R. Catterall, *Second Bank of the United States* (Chicago: University of Chicago Press, 1903), p. 184, and M. Grace Madeleine, *Monetary and Banking Theories of Jacksonian Democracy* (Philadelphia, 1943), pp. 41–43, have accepted Jackson's position as an attack on the whole banking system and not just one directed against Biddle. In this connection it is important to call attention to the fact that in America, as Professor Redlich has observed, banking had note-issuing as its major form of credit extension (*Molding of American Banking*, pp. 10–13). Hence an attack on banks was an attack on paper money.

[30] A. M. Schlesinger, Jr., *Age of Jackson* (Boston: Little, Brown, 1945), p. 128. Margaret Myers in *New York Money Market* (New York: Columbia University Press, 1931), I, 16, called the prohibition a "logical outgrowth of his [Jackson's] growing hostility to the use of bank credit. . . ."

[31] Earlier in 1836, Senator Thomas Benton, aroused by the host of new state banks, introduced a resolution making only specie acceptable for public-land purchases, but it failed of passage. W. G. Sumner, *Andrew Jackson* (Boston: Houghton Mifflin, 1910), p. 393.

former President, tried to carry the hard-money policy another step when he suggested, in 1837, the divorce of state and banks under the Independent Treasury System.[32] The Jacksonian leaders on the national level, however, never ventured beyond such halfway measures. Their effort to reduce the amount of paper money and to make the circulating medium almost entirely specie was never even partially attained because the paper money issued by the increasing number of state banks more than filled the monetary void left by the Bank of the United States.

The Locofocos, though, were not satisfied with such mild efforts, as we have seen. Their program boldly called for the total abolition of banks of issue, which they felt defrauded workers and consumers through depreciated currency[33] and brought about depressions by erratic currency expansion and contraction. The Locofocos here were carrying out faithfully the precepts of William Gouge and other hard-money, antibank theoreticians of the Jacksonian left wing.

These monetary principles of the Locofocos and hard-money Jacksonians in general had serious consequences and implications for the future development of the American economy. Historians of early American banking have assured us that the "dearth of cash capital" in this country produced a scramble for capital because opportunities, ideas, and natural resources abounded, crying out for exploitation.[34] To help provide the much sought-after capital, Alexander Hamilton had enlisted the power and resources of the Federal government through the agency of financial devices like the Bank of the United States. As Hamilton had foreseen, industrial-commercial capitalism in the early decades of the Republic needed government aid and encouragement if it was to expand and develop rapidly. Conversely, those who opposed the metamorphosing of agrarian America into an industrial-commercial nation quite naturally turned to the doctrine of laissez faire as their

[32] Jackson's so-called Farewell Address—to be found in J. D. Richardson, ed., *Messages and Papers of the Presidents* (n. p., 1909), III, 304–6—contained a strong and forthright statement of the hard-money views he had adopted by 1837.

[33] See Leggett's *Writings,* I, 43, 226–27 for editorials exposing the employers' practice of buying depreciated currency with which to pay their workmen. As late as 1850 payment of workers with such devalued money was a labor grievance, for in that year the Printers' Union cited it as an evil of the trade. *New York Evening Post,* May 23, 1850.

[34] Bray Hammond, "Long and Short Term Credit in Early American Banking," *Quarterly Journal of Economics,* XLIX (November 1934), 82. See also Miller, *Banking Theories . . .* , pp. 18–19. Carter Goodrich in "National Planning of Internal Improvements," *Political Science Quarterly,* LXIII (March 1948), points out that during the early nineteenth century the shortage of private capital required government to advance subsidies in order to open lines of transportation.

intellectual weapon. Notable in this regard were agrarians like Thomas Jefferson and John Taylor of Caroline.

When Jackson destroyed the Bank of the United States he was following the agrarian demand for the severance of the connection Hamilton had established between the commercial community and the Federal government. Under the Jacksonians even use of the government deposits was denied the business community. Government aid to business enterprise was to cease, and a contraction of the currency was to be substituted for a much needed expansion. But the assault upon the Hamiltonian system made by the Jacksonians fell far short of completion, for in place of the defeated "monster" there arose scores of state banks to provide much cheap, if unstable, paper money. Unable to halt the drive toward the new economic order, the Jacksonians only impeded commercial and industrial development by substituting an inadequate financial system for one "as good as any the country ever possessed." [35] As Professor W. B. Smith has observed, they pushed American banking theory and practice from a place at the head of the Western nations to one at the rear.[36]

It was left to the Locofocos, however, to spell out and thereby reveal the essentially agrarian implications of the Jacksonian monetary ideas. In an America starved for capital and credit, the doctrines and utterances of the Locofocos could only be viewed with anger and alarm by the commercial community. The almost total absence of bankers, merchants, and lawyers among the Locofoco leadership underscores the serious threat the party's monetary principles offered to the business community.[37] It was the deflationary monetary principles of the Locofocos which seemed so dangerous to the Whig businessmen of the time, as President Van Buren found in August 1837 when he publicly advocated the severance of all connections between the banks and the Federal government. "The message of Mr. Van Buren," commented the *New York Courier and Enquirer,* "is the document that might have been expected . . . embodying in specious

[35] Bray Hammond, "Jackson, Biddle, and the Bank of the United States," THE JOURNAL OF ECONOMIC HISTORY, VII (May 1947), 20.

[36] W. B. Smith, *Economic Aspects of the Second Bank of the United States* (Cambridge: Harvard University Press, 1953), p. 263.

[37] For two examples of animosity toward the Locofocos because of their dangerous character, see the article signed "Vigilance" in *New York Times,* September 14, 1837, and the quotation from *Madisonians,* (the right-wing Democratic newspaper) in *New York Evening Post,* September 29, 1837. William Trimble, "The Social Philosophy of the Locofoco Democracy," *American Journal of Sociology,* XXVI (May 1921), 711–12, gives further examples.

phrase and thin-veiled sophistry the most pernicious doctrines of Loco Focoism. . . . The president in his message assumed all the positions of ultra Loco Focoism." [38]

Wedded to private property and profits as they were, the Locofocos were no socialistic opponents of capitalism like the Owenites or Brook Farmers. But by advocating deflationary doctrines in a society working to expand its businesses, industries, and enterprises, they threatened the economic way of life of their time. Their brand of hard money would help few businessmen and would open up precious few opportunities in a credit-hungry economy.

Bray Hammond pointed out a few years ago in THE JOURNAL OF ECONOMIC HISTORY [39] that the Western states, which he labeled "agrarian," were not as avid for banks and cheap money as has been commonly alleged. Their restrictions and prohibitions on banking and money, he said, signify their continuing connection with the old economic precepts of John Taylor and William Gouge. It might be further observed here that the West was not the only agrarian area in this respect: New York City in the era of Jackson and Van Buren also had "agrarians"—the Locofocos. A better term would be "opponents of industrialism." For, in the last analysis, all hard-money Jacksonians were knit together by a common principle. All of them opposed the developing commercial-industrial order that was fast displacing the simpler and supposedly more humane agrarian society which had been the America of the Declaration of Independence and Equal Rights.[40]

CARL N. DEGLER, *Vassar College*

[38] Quoted in *New York Evening Post*, September 7, 1837.

[39] Bray Hammond, "Banking in the Early West: Monopoly, Prohibition, and Laissez-Faire," THE JOURNAL OF ECONOMIC HISTORY, VIII (May 1948), 1–25.

[40] Cf. Walter Hugins, "Ely Moore: the Case History of a Jacksonian Labor Leader," *Political Science Quarterly*, LXV (March 1950), 105–25, who writes: "America's chief heritage from Jacksonian Democracy was not a growth of a militant labor movement, but the economic exploitation of a continent" (p. 125). One may agree with the first conclusion, but the second ignores the Locofocos, a group hardly nurturing capitalist expansion.

Economic Growth in Italy: An Analysis of the Uneven Development of North and South

IF problems of historical study are to be chosen on the basis of their importance in affecting the course of human affairs through time, no phase of life in Western culture during the century and a half after 1800 is more worthy of study than that of economic development. During these one hundred and fifty years there was an increment of total production within western Europe of an estimated 1,500 per cent and an increase of output per capita of some 500 per cent. At no time in history had an equal advance been made at such a rapid pace.

For a great number of reasons, some of which are to be investigated here, all parts of western Europe, to say nothing of the rest of the world, did not share equally in this economic growth. Consequently there came into being great discrepancies in the economic well-being and in the political-military power of different states and of different regions within states—between the so-called economically developed and the underdeveloped areas of the earth. In the course of time, people in underdeveloped areas, particularly those within national states where certain districts had experienced economic growth, came to want material status equal to that of their conationals and to demand assistance from state funds for raising their level of economic activity. Then, at about the same time, people in more advanced economic districts came to believe, especially in countries where services of the "welfare state" had become extensive, that economic growth of backward areas within their nation would reduce the financial support which they had to give to their cocitizens. They began to think, also, that it was not only their duty to improve the material well-being of the less fortunate, but that they would be better off if the "poor were richer" so that they could do business with them.

Because of such considerations a movement for regional economic equality took root and grew—a movement that was nourished by such economic factors as the presence in backward areas of raw materials, of cheap labor, and of an effective market demand for at least some of the staples of consumption. This movement has led to a spate of speculation about the causes of, and cures for, regional economic differences and to a myriad of plans for the development of economically underdeveloped areas.

Of all the cases of uneven economic growth in any one nation, one of the most striking and one which is particularly pregnant with lessons of economic development is to be found in Italy. Here the South, the *Mezzogiorno,* has fallen economically far behind the Center and North, particularly the latter.[1] Although the South contains 41 per cent of the land area of Italy and has 37 per cent of the population, it accounted in 1953 for but 19.6 or 21.2 per cent of the country's national income, depending upon whose estimate is used.[2] As a consequence, national income per capita in the South was in the same year only some 41 per cent of that of the rest of the nation.

Although we do not have statistical evidence of a strictly comparable character for Italy of a century ago, it would seem that the differences between the South and the rest of the nation have grown greater rather than less. Local taxes, which have not been fundamentally altered in character since 1861 and which today produce revenue on a regional basis in direct proportion to national income, indicate a widening of the gap. In fact, in the decade 1871-1880 the South accounted for about a third of all the local tax revenue of the nation and a per capita revenue about 75 per cent that of the rest of the Kingdom.

The drastic economic differences between the North and the South are accentuated not only by the fact that they have increased, but also by the fact that they exist between two regions which nourish resentments of each other and which are so far apart that there cannot be intimate contacts of large numbers of their populations. The fact that Piedmont and Lombardy are removed from Sicily by some thousand miles and that Sardinia is in a real sense cut off from the mainland by the sea has not confirmed the old proverb that "distance lends enchantment." Quite the contrary. Northerners have traditionally regarded the South, which they usually have not known from firsthand observation, as being peopled with inferior human beings, and South-

[1] The South comprises the provinces of Abruzzi and Molise, Campania, Puglia, Basilicata, Calabria, Sicily, and Sardinia. The Center includes Tuscany, Umbria, Marche, and Lazio. The North is composed of Piedmont, Liguria, Lombardy, Trentino and Upper Adige, Venetia, Venetia Julia, and Emilia. The territory actually contained in the three sections has changed through time because of frontier alterations. For a detailed description of the regions and changes effected since unification in 1861, see *Statistiche sul Mezzogiorno d'Italia, 1861–1953* (Rome: Svimez, 1954), p. xi.

[2] See Guglielmo Tagliacarne, "Calcolo del Reddito del Settore Privato e della Pubblica Amministrazione nelle Province e Regioni d'Italia nel 1953 e Indici di Alcuni Consumi e del Risparmio Bancario e Postale," *Moneta e Credito,* VII, No. 26 (1954), 165–212; and G. Cusimano, "Di Alcuni Criteri Metodologici per la Ripartizione del Reddito Nazionale fra le Regioni Italiane," *Rivista Italiana di Economia, Demografia, e Statistica* (January–June 1954), VIII, 58–104.

erners have looked upon the North, with which they have been ill acquainted, as inhabited by selfish individuals who somehow or other have exploited them. Only in recent times have serious efforts been made to overcome such prejudices and to raise the level of economic activity in the South.[3] And only in the last few years have scholars sought critically to analyze the reasons for unequal growth between North and South.

As a first step in any such investigation, it is necessary to determine what sectors of the economy, whether agriculture, industry, or services, are lagging behind the others and what parts of these main sectors of economic activity are particularly backward. In following such a procedure one finds that in 1952, although 41 per cent of Italy's gross national income came from industry, the South, which had, as we have seen, 37 per cent of the national population, accounted for only 18.2 per cent of industrial income; that although 25.6 per cent of national income came from agriculture, the South was responsible for but 32.8 per cent of total agricultural income; and that although the remaining 33.4 per cent of national income came from other activities, the South accounted for only 13.3 per cent, a proportion that, small as it was, was inflated by income from "public administration," which was paid for in part by taxpayers from other regions of the nation.

Apparently these proportions had in a rough way been similar for a long time. In 1876 the South had but 17 per cent of the industrial workers of the Kingdom, 16 per cent of the steam boilers,[4] 15.4 per cent of the concessions for water power, and a correspondingly small percentage of mechanical looms in the cotton textile industry.[5] In agriculture, on the other hand, the South produced in the early years of the 1870's, 53 per cent of Italy's wheat, 32 per cent of its potatoes, and accounted for enough of the other products of the soil to indicate that its total agricultural output was in line with its percentage of the ter-

[3] Some efforts were made earlier, as we shall see, but they were not continued long enough. Recent governmental action has been in the form of public works programs, loans to enterprisers who located in the South, and tax relief during the early years of a business. See *I Finanziamenti all'Industria del Mezzogiorno,* Svimez, September 1952, and Cassa per il Mezzogiorno, *Bilanci,* 1951–1952 and years following. Government expenditures for economic development are much higher in proportion to government tax revenues in the South than in the North. *Statistiche sul Mezzogiorno,* p. 1002.

[4] Horsepower in the South was, however, 28.2 per cent of the total. This was because of the installations in the sulphur mines, an industry without a future because of American competition from about 1908 onward.

[5] See Vittorio Ellena, *La Statistica di Alcune Industrie Italiane* (2d ed.; Rome: Botta, 1880), *passim.* There was considerable household and artisan production in the South, which was to disappear very largely with the development of machine production in the North. At least, the South had, in 1876, 46 per cent of all household looms in the country.

ritory of the Italian state.[6] In transportation the South was at the time of unification definitely behind the rest of the country, having in 1861 only one fifth as much railway and one third as much roadway mileage per capita, and one seventh as much railway and one third as much roadway mileage per square kilometer of territory, as the rest of the country.[7] This weakness in transportation facilities suggests but a slight division of labor, which is a prerequisite of economic growth, and indicates that the "services" sector of the economy was weak, whereas in all advanced economies it is found to be strong.

The above data bear witness to the economic inferiority of the South in respect to the rest of Italy at the time of unification and to an increase of this inferiority over time. They suggest, moreover, that a historical inquiry into the reasons for the South's economic backwardness must be concerned primarily with the industrial and services segments of the economy.[8] This was to have been expected, for the greatest advances in production per operative have been realized in these branches of activity—indeed, output per worker in industry and in services in Italy is at the present time about twice that of workers in agriculture.[9]

The question why the North has experienced greater industrialization than the South has for a long time been the subject of bitter debate among Italian economists and economic historians. Southerners have tended to explain the difference in political terms, contending that the South was neglected by the statesmen of the North who led the movement for the unification of Italy and who wielded power in the new state in the first years after 1861. They have maintained that industrial growth in the South was stunted because Southern industries were suddenly faced with the competition of Northern ones, were deprived of adequate tariff protection when the low rates of the Kingdom of Sardinia were extended to the entire peninsula, and were discriminated against when Italian tariff rates were pushed up at the end of the

[6] See *Annuario Statistico Italiano. Anno 1881* (Rome: Botta, 1881).

[7] For the railways see *Ministero delle Comunicazioni, Ferrovie dello stato, Sviluppo delle Ferrovie Italiane dal 1836 al 1926* (Rome, 1926).

For roads see Cesare Correnti and Pietro Maestri, *Annuario Statistico Italiano, 1864* (Turin: Tipografia Letteraria, 1864), p. 694.

[8] In the sixty years prior to World War II, world manufacturing increased sevenfold. In this period Italy's share of world manufacturing remained fairly steady at about 2.5 per cent of the total. League of Nations, *Industrialization and World Trade* (Princeton, 1945), p. 13.

[9] *Compendio Statistico Italiano, 1954* (Rome: Instituto Poligrafico dello Stato, 1954). Tables 17 and 303. See also "Il Piano Vanoni," supplement to *Mondo Economico* (January 15, 1955), p. 3.

century. They have claimed that governmental expenditures for public works were much greater in the North than in the South; that all the good positions in public administration went to Northerners; and that Northern tax laws, particularly the "grist tax," which were adopted by Italy, worked a hardship on the South. In short, they have maintained that responsibility for the economic inferiority of the South is to be laid at the door of the North.[10]

In some quarters, especially in the North, this more or less standard account has been seriously questioned. Critics have endeavored to demonstrate that marked differences existed between the two regions at the time of unification, and they have maintained that the continuing difference cannot be accounted for on the ground of political action, because state intervention was neither of a magnitude nor of an intensity sufficient to change the course of economic development. Furthermore, they have pleaded for more adequate documentation of the subject than has hitherto been available and for an analysis of the data based on all the facets of human activity which pertain to economic growth. Their contentions have led to a reconsideration of the traditional explanation, to a revisionist position, and to new research on this important aspect of Italian economic history.

Any adequate investigation of why industry and services developed more rapidly in the North of Italy than in the South entails, in the opinion of the authors of the present article, a study both of cultural diffusion and economic growth. It is a study in diffusion because most of the new industrial technology, many of the business practices, and some of the capital for the "industrial revolution" originated in a triangle with apexes in England, northern France, and western Germany and thence spread to other places. And it is a study in economic growth because the seeds of industrialization sown by diffusion would have amounted to little had they not fallen in places where conditions were favorable to their development and would be of little interest in the present context if they had not borne some fruit.

The double task before us is furthermore complicated by the circumstance that some of the factors with which we shall be dealing and

10 For a recent statement of the Southern interpretation, see G. de Meo, "Aspetti Quantitativi dell'Economia Italiana," *La Disoccupazione in Italia* (Rome: Camera dei Deputati, 1953–54), Vol. IV, Part 3. See also Benedetto Croce, *Storia d'Italia* (Bari: Laterza, 1929), pp. 60–61, and Giustino Fortunato, *Il Mezzogiorno e lo Stato Italiano* (2 vols.; Florence: Vallecchi, 1926). Critical of this position are Gino Luzzatto, *Storia Economica* (Padua: Cedam, 1952), p. 396, and Antonio Fossati, *Lavoro e Produzione in Italia* (Turin: Giappicelli, 1951), pp. 212 ff.

much of the evidence which can be marshaled concerning them are so intertwined that from one point of view they appear as "causes" and from another as "effects" of change. In other words, we are involved here, as so frequently in the social sciences, in trying to determine which came first the hen or the egg, or, for that matter, the rooster, and have to take refuge in the principle of necessary concomitance.

From out of the maze of data that have been amassed on the subject of industrial diffusion, it is possible to derive two broad generalizations which can serve as points of departure for the present investigation. One of these is that industrial techniques, mechanized transportation, and new business institutions usually moved first to those places where cultural ideologies, economic conditions, and technological knowledge were most similar to, and where communications were the most active with, the early industrialized districts. As can be seen from Table I, manufacturing spread first to those places within Western culture that were closest to England geographically, or culturally as in the case of North America, and only subsequently to profoundly different cultures. Furthermore, within areas thus circumscribed, industry was attracted to localities that had coal and iron deposits, water power, cheap transportation facilities, and a relatively high agricultural output or active commerce per capita of the population. Therefore, we may well ask at the outset whether these conditions for "pulling" industry to underdeveloped areas were more powerful in Northern or Southern Italy.

If these factors in diffusion are dealt with in the reverse order to which they have been listed above, for the very good reason of following an ascending scale of complexity, attention may first be drawn to those endowments of nature given to the two parts of the Italian peninsula. Niggardly as Italy seems to have been treated in the distribution of the great natural resources which played so important a role in the early development of mechanized industry, there is no doubt but that the North fared much better at the hands of nature than did the South. As regards fertile land, the North certainly had the advantage, for the Po Valley is superior to any area of similar size in the South. Here at least, agricultural output per capita was great enough to permit some savings for investment and to allow the diversion of some labor from agriculture to other kinds of economic activity. As regards mineral deposits, neither region had large supplies of all-important coal,[11] but

[11] It should be added that the fertility of the soil in the Po Valley is to be accounted for in part by the "plowing back" of earnings into farming.

The North had small, low-grade deposits of coal in Tuscany; the South similar mines in Sardinia.

TABLE 1

PERCENTAGE DISTRIBUTION OF THE WORLD'S MANUFACTURING [a] PRODUCTION

Period	*United States*	*Germany*	*United Kingdom*	*France*	*Russia*	*Italy*	*Canada*	*Belgium*	*Sweden*	*Finland*	*Japan*	*India*	*Other Countries*	*World*
1870	23.3	13.2	31.8	10.3	3.7	2.4	1.0	2.9	0.4	—		11.0		100.00
1881–85	28.9	13.9	26.6	8.6	3.4	2.4	1.3	2.5	0.6	0.1		12.0		100.00
1896–1900	30.1	16.6	19.5	7.1	5.0	2.7	1.4	2.2	1.1	0.3	0.6	1.1	12.3	100.00
1906–10	35.3	15.9	14.7	6.4	5.0	3.1	2.0	2.0	1.1	0.3	1.0	1.2	12.0	100.00
1913	35.8	15.7	14.0	6.4	5.5	2.7	2.3	2.1	1.0	0.3	1.2	1.1	11.9	100.00
1913 [b]	35.8	14.3	14.1	7.0	4.4 [c]	2.7	2.3	2.1	1.0	0.3	1.2	1.1	13.7	100.00
1926–29	42.2	11.6	9.4	6.6	4.3 [c]	3.3	2.4	1.9	1.0	0.4	2.5	1.2	13.2	100.00
1936–38	32.2	10.7	9.2	4.5	18.5 [c]	2.7	2.0	1.3	1.3	0.5	3.5	1.4	12.2	100.00

League of Nations, Industrialization and World Trade (1945), p. 13.

[a] Includes finished products, semimanufactures, like unworked metals, pulp, coke, fertilizers, and cement, as well as manufactured foodstuffs, like flour, canned goods, and sugar.

[b] The second line for 1913 represents distribution according to frontiers established after World War I.

[c] U.S.S.R.

otherwise the North had distinct advantages. It had iron ore around Lake Como, in the Val d'Aosta, on the Island of Elba, and at Terni in Umbria, which accounted for the establishment in each of these localities, except on the Island of Elba, of smelting and metalworking industries,[12] whereas the South had principally sulphur, lead, and zinc, which were not important enough to change radically the regions in which they were found. As regards water power, the North had the fast and steady-flowing Alpine streams, fed by glaciers and a vast system of lakes, which attracted the cotton and woolen textile industries to them, whereas the South had practically no rivers of commercial importance, and those that did exist were usually dry in the summer. Finally, although both North and South had many good ports, the North had the Po and its tributaries for inland water transportation, to say nothing of canals dug in the flat Po Plain,[13] whereas the South had no inland waterways whatsoever.

Thus, although the natural resource pattern of Italy could not by any stretch of the imagination be described as remarkable, nature had given the North enough of an advantage over the South so that the former rather than the latter region attracted manufacturing in the early industrial development of the country. This was of great importance for subsequent growth, for the tendency of industries to draw satellite industries to them worked in favor of that area which started first. Thus, the machine industry became located in the North, especially around Turin and Milan, because of the availability of iron and steel and because the chief users of machines, that is, the textile industries, were nearby; the railway equipment industry became established at Genoa, Turin, and Milan because of the supply of metal, proximity to the early market, and local supplies of capital; and the rubber industry was founded at Milan because of the industrial demand for rubber products.

Another advantage which the North had over the South in the process of industrialization was that it had closer and more abundant communications with the earlier-industrialized regions of Europe. Englishmen and Frenchmen who took the "grand tour" to Italy seldom got below Rome, and if they did reach Naples, they usually found it the "very negation of God" in its primitiveness. The French, during the

[12] In 1876 the South had only a half of one per cent of the metallurgical workers in Italy. Ellena, *La Statistica di Alcune Industrie Italiane,* pp. 139–41.

[13] The Naviglio Grande or Grand Canal from Pavia to near Milan is an example of this network. It was built in the twelfth century and hence as early as canals in the Netherlands.

Revolution and Napoleonic period, had much closer relations with the North than with the South, doing much to break down those ideological, political, and social rigidities which impeded freedom of economic decisions and hence economic growth. Indeed, they did something to foster the economic development of the North, the Continental System being designed to be of advantage to the Napoleonic Kingdom of Italy as well as to France.[14]

After the restoration effected by the Congress of Vienna, communications between Piedmont and France and England continued to be particularly active. The fact that the Kingdom of Sardinia included a large French-speaking area north of the Alpine passes and along the coast to Nice meant that Piedmontese leaders knew French, kept abreast of what went on in France, and looked to France for leadership in all aspects of life. It was not strange that some of the first railways in Piedmont were built to connect Turin with Paris and that the first great Alpine tunnel, that of the Mont Cenis (1871), was constructed to facilitate rail traffic between the two capitals.[15]

With England, too, the Kingdom of Sardinia had an active exchange of ideas and persons. Not only did many Italian political exiles, like Mazzini, seek refuge in England, but the Piedmontese followed closely the work of English economists and engineers. They received Richard Cobden with warmth on the occasion of his Italian trip; they usually included England when they went on their own "grand tour" of western Europe;[16] and they employed many Englishmen in their industrial enterprises.[17]

For their part, Lombardy and Venetia, which were under Austrian domination, respectively, until 1860 and 1866, had close relations with economically more advanced areas, especially with Switzerland and Germany. Swiss entrepreneurs were so numerous at Bergamo that

[14] E. Tarlé, *Le Blocus Continental et le Royaume d'Italie* (Paris: Allan, 1928).

One should not forget that Naples had contacts with England and France in this period, as is witnessed by the long stay there of Lord Nelson and the founding of the first Jacobin Clubs in Italy at Naples. Such relations had little to do with economic growth except perhaps in the case of Marsala wine in Sicily. Here such English companies as Woodhouse and later Ingham and Whitaker and Co. "manufactured" Marsala wine to compete with port and sherry in the English market. See also G. Carano-Dovito, *L'Economia Meridionale Prima e Dopo il Risorgimento* (Florence: Valleechi 1928).

[15] This tunnel was begun in 1857 and finished in 1871.

[16] This was the case with Cavour. He studied at Geneva, Paris, and London. See F. Camozzini, *Cavour Economista* (Turin: Lattes, 1926); G. Prato, *Fatti e Dottrine Economiche alla Vigilia del 1848* (Turin: Bocca, 1920); and Roberto Michels, "Torino e il Piemonte Economico-Sociale nella Luce dei Viaggiatori Stranieri del Passato," *Onore e Ricordi di G. Prato* (Turin: R. Istituto Superiore di Scienze Economiche e Commerciali, 1931), pp. 627–46.

[17] See, for example, the case of the shipbuilding and armaments concern of Ansaldo in Emanuele Gazzo, *I Cento Anni dell'Ansaldo, 1853–1953* (Genova: Ansaldo, 1953).

they formed a kind of colony, which exists even to the present time; the Falcks, who entered the metallurgical industry in the Como region, came from the Rhineland;[18] and foreign names are scattered through the annals of the economic life of Lombardy and Venice.[19] Both provinces had, in fact, a whole coterie of intellectuals who followed the economic and technical literature of England and France and who were anxious to introduce new techniques and economic institutions to their territories.[20]

Not only, however, did the North have an advantage over the South in matters of natural resources and communications with already industrialized regions, but also it had a more favorable ideological climate than the South for the acceptance of new methods of production—it had more of a desire to improve the material well-being of the people by increasing production per operative. In the North the medieval and Renaissance economic achievements of Venice, Genoa, Milan, and Florence were glorified and were recognized as having been a necessary condition for the great cultural accomplishments of these cities. Here the acquisition of wealth through trade and industry was not, in general, considered socially degrading, and the members of many noble families, of whom Count Cavour is an excellent example, invested capital in industrial enterprises. In the South the owners of great estates[21] maintained the traditional scorn of the medieval landed nobility for trade and manufacturing, put their agricultural earnings largely into farming or into living the life of great seigneurs, and rarely turned to the somewhat humiliating callings of commerce and industry. Members of other classes had little capital to invest, were hostile to new business methods and attitudes, and had many characteristic modes of behavior which were not conducive to economic growth.[22]

These differences find peculiar support from information pertaining to the joint-stock form of business organization. A detailed study of

[18] Falck. Uffici Studi. *Imprese Lombarde nella Storia della Siderurgia Italiana. Il Contributo dei Fratelli Falck, 1833–1913* (1952).

[19] G. Frattini, *Storia e Statistica della Produzione Manifatturiera* (Milan: Bernardoni, 1857).

[20] See on this subject the illuminating study by Kent Roberts Greenfield, *Economics and Liberalism in the Risorgimento* (Baltimore: The Johns Hopkins Press, 1934).

[21] The estates in the South were no greater than they were in Tuscany. One of the major differences was that as a rule the owners in Naples and Sicily actually managed large-scale agricultural operations on their lands, while in Tuscany estates were divided into small parcels and rented for a share of the crops or for money. See Assemblea Costituente. *Rapporti delle Commissioni all'Assemblea Costituente. Commissione Economico Agricoltura. Relazione* (Rome: Instituto, Poligrafico dello Stato, 1946).

[22] Southerners were notorious for being tardy in meeting their business obligations. In 1878, although banks in the South did but 5.2 per cent of the nation's lending, they had 27 per cent of the country's "past due" but still collectible paper. Alfredo Salvatore, *Le Casse di*

corporate companies shows, as can be seen from Tables 2, 3, and 4, that the North had relative to its proportion of the population many more incorporated businesses than the South, a great deal more in corporate investments, and more corporate capital per industrial worker than the South. From the extensive use of an institution that was, at the time under consideration, an entrepreneurial innovation, especially in industry, the North, it seems fair to assume, had more of an urge than the South to effect economic progress and more of a penchant for industrial development.[23]

TABLE 2

JOINT-STOCK COMPANIES IN ITALY, INCLUDING RAILWAYS
(millions of lire)

Year	*Number with Home Office in South*	*Number in Kingdom*	*Nominal Capital* South	*Nominal Capital* Kingdom	*Paid-in Capital* South	*Paid-in Capital* Kingdom
1863	50	372	171	1,298	not available	
1867	43	291	99	1,528	83	1,192
1872	59	585	198	2,377	127	1,562
1876	95	622	217	1,974	164	1,341
1887	503	1,568	378	2,900	272	2,135

The data contained in the tables suggest that still another factor conducive to the drawing of industry and to economic growth generally, that of saving out of current income in order to invest in producers' goods, was stronger in the North than in the South. This conclusion seems to be confirmed by such direct evidence as savings bank accounts, of which the South had in 1877 only 7.1 per cent;[24] by data pertaining to bank discounts, of which the banks of issue in the South accounted

Risparmio in Italia dal 1822 al 1904 (Rome: Ministry of Agriculture, Industry, and Commerce, 1906), p. 20. In the South, too, people were more given to lawsuits than in the North. See A. Niceforo, *Italiani del Nord e Italiani del Sud* (Florence: Tipografio Cooperativa 1900), pp. 328–36. There was also less regard for public authority in the South than in the North, as was seen by the existence of La Mafia in Sicily and La Camorra in Naples.

[23] This information is taken from the following works: *Annuario del Ministero di Agricoltura, Industria e Commercio* (Turin: Dalmazzo, 1863), Vol. I, pp. 550–624; Carlo De Cesare, *Il Sindacato Governativo, le Società Commerciali e gli Istituti di Credito nel Regno d'Italia* (Florence: Pellas, 1869), pp. 126–81; Ministero d'Agricoltura, Industria e Commercio, *Elenco Generale e Classificazione degli Istituti di Credito e Società Anonime ed in Accomandita per Azioni, Nazionali ed estere, Operanti nel Regno al 31 Dicembre 1872* (Rome: Stampa Reale, 1874); *Idem* for 1876 (Rome: Botta, 1877); *Idem* for 1887 (Rome: Botta, 1888); Ministero di Agricoltura, Industria e Commercio, Divisione Industria, Commercio e Credito, *Le Società Cooperative di Credito e Banche Populari, le Società Ordinarie di Credito, le Società ed Istituti di Credito Agrario, e gli Istituti di Credito Fondiario nell' Anno 1887* (Rome: Botta, 1889).

[24] Ministero di Agricoltura, Industria, e Commercio, *Bolletino Bimestrale del Risparmio*, No. 6, Appendix.

TABLE 3

PAID-IN CAPITAL OF JOINT-STOCK COMPANIES BY IMPORTANT SECTOR OF THE ECONOMY, 1876
(thousands of lire)

Segments of Economy	*South*	*Kingdom*	*Percentage of South*
Banks	81,471	505,399	16.1
Insurance	12,718	80,747	15.8
Mining	34,500	80,770	42.7
Manufacturing	9,804	132,058	7.4
Building-Housing	7,133	81,732	8.7
Railways	——	366,079	—
Other	18,342	94,034	19.5
Total	163,968	1,340,819	12.2

TABLE 4

CAPITAL OF FOREIGN JOINT-STOCK COMPANIES OPERATING IN ITALY
(thousands of lire)

Year	*South*	*Kingdom*	*Percentage of South*	*Percentage of Foreign Capital to Total Capital*	
				South	*Kingdom*
1863	125,000	318,620	39.2	73.1	17.2
1867	30,000	78,397	38.3	36.0	4.4
1872	46,875	120,974	38.7	36.9	5.2
1876	56,486	173,019	32.6	34.4	9.9
1887	97,395	426,725	22.8	35.8	17.7

for 27.5 per cent in 1878; by statistics on bank loans other than governmental, of which the South had 5.5 per cent; by the fact that the South had only 16 per cent of joint-stock banks in 1876; and by findings which indicate that the South had only 12 per cent of the capital in corporations in 1887. In the ensuing years these proportions increased only moderately. In 1952, current and savings accounts in the South were 20 per cent of the nation's totals, bank loans were 17 per cent, and discounts, 20 per cent. Moreover, in this same year the South accounted for only 12.3 per cent of private investments, although public investments brought the percentage of all investments in the South up to 20 per cent of the Republic's total.[25]

One of the reasons advanced to explain the lower rate of savings in the South than in the North has been that the rate of natural growth of population in the former region has been much higher in relation to economic growth than in the latter. Italian experience supports the

[25] *Statistiche sul Mezzogiorno d'Italia, 1861–1953*, pp. 580, 686. Public investments in this year were so distributed that the South got 37.7 per cent of them.

general observation that as population approaches the limit of food resources and other production potentials, the rate of savings becomes exceedingly low.[26] Demographic phenomena have, indeed, played an important role in the uneven economic development of North and South.

For most of the period for which adequate statistical information is available, Southern Italy has had a much higher birth rate than the North, and in spite of a greater rate of emigration, a higher rate of natural increase.

TABLE 5

NUMBER OF BIRTHS PER 1,000 INHABITANTS *

	1881–1885	*1896–1900*	*1936–1940*	*1950–1951*
North	36.1	33.3	20.2	15.4
South	40.5	35.8	29.1	25.5

* See *Statistiche sul Mezzogiorno d'Italia*, pp. 61–62, and E. Antonucci and U. Trillo, *Provenienze e Destinazioni delle Correnti dell'Emigrazione Italiana dal 1876 al 1930* (Rome, 1933), p. 978.

TABLE 6

NATURAL INCREASE PER 1,000 INHABITANTS

	1881–1885	*1896–1900*	*1936–1940*	*1950–1951*
North	9.9	11.5	7.4	5.5
South	11.7	10.7	13.5	15.7

TABLE 7

OUT-MIGRANTS (−) AND IN-MIGRANTS (+) AS PER CENT OF NATURAL INCREASE

	1901–1911	*1931–1936*	*1936–1951*
North	−31.9	+4.5	+6.2
South	−62.2	−36.0	−20.7

Such demographic behavior had two consequences which were particularly relevant to economic growth. One was that the South tended to have a larger percentage of its population than the North at unproductive ages, especially at the early ones when dependency is the greatest. The second was that emigration, which is usually regarded in overpopulated areas as a highly desirable thing, was, in fact, an economic drain, for most emigrants are at the early productive ages, and the cost of raising these people falls largely as a net economic burden on the economy whence they come. Estimates of what this burden has been for Italy as a whole, and especially for the South, reach staggering sums—sums which might have been saved and invested.[27]

[26] League of Nations, *Industrialization and World Trade* (1945), *passim*.

[27] Corrado Gini, "Cause Apparenti e Cause Effettive della Prosperità Americana," *Scritti di Sociologia e Politica in Onore di Luigi Sturzo* (Bologna: Zanichelli, 1953).

TABLE 8

POPULATION BY AGE GROUPS *

(percentages)

Ages	*Regions*	*1871*	*1901*	*1921*	*1936*
0–14	North	32.5	34.0	30.1	28.3
	South	32.5	34.9	32.6	35.0
15–39	North	38.9	36.9	40.0	45.8
	South	38.7	35.9	36.9	41.9
40–59	North	19.9	19.4	19.4	18.5
	South	19.9	19.7	18.7	16.0
60 and over	North	8.7	9.7	10.1	7.4
	South	8.9	9.5	11.0	7.4
Unknown	North			0.4	
	South			0.8	

* *Statistiche sul Mezzogiorno*, p. 25.

TABLE 9

OCCUPATIONAL DISTRIBUTION OF THE ACTIVE POPULATION
1952

(percentages)

	North	*South*
Agriculture	36.6	52.3
Industry, Transportation, Commerce	40.2	28.3
Other	23.2	19.4

Not only, however, have a high rate of natural increase, a large percentage of children in the population, and a high out-migration tended to have unfortunate economic consequences for the South, but the labor force in the South has been used less effectively than that of the North. Occupational distribution in the South has been such that a larger proportion of workers has been kept in the low-income earning segments of the economy, such as agriculture, than in the North. Furthermore, the labor force in the South has not been able, because of extensive illiteracy and lack of technical education, to develop skills, at least from early ages, at the same rate as in the North. In 1871 the number of illiterates per 100 inhabitants over six years of age was 59 in the North and 84.1 in the South, while in 1948 the corresponding numbers were, respectively, 5 and 24. In 1949–1950, the North and center accounted for 70 per cent of all school children in technical or professional upper middle schools, that is, for young people from approxi-

mately the ages of thirteen to eighteen, while the South accounted for the other 30 per cent. Even the public health of the North has been superior to that of the South, if we may judge by the fact that the expectation of life at birth in the years 1936/1937 was 60 years in the North and 54.2 in the South and that expectations of life in the two regions were not the same until the ages of 20–30 were reached.[28]

A final aspect of the differences between North and South that affected their receptivity to mechanized industry and their general economic growth was the much greater social flexibility in the North than in the South—a less rigid socioeconomic class structure, a more fluid pattern of ideologies, and a more pliant attitude toward productive techniques. As has been observed by many students of social change, the breaking down of rigidities by some great movement of "reform," whether Protestantism, Marxism, or the French Revolution, prepares the way for the adoption of innovations in various segments of society. In the case of Italy, social rigidities were not only more thoroughly destroyed in the North than in the South during the turbulent years of the French Revolution and of Napoleon, but many of them continued to come under more severe attack in the North than in the South during the entire period of the Risorgimento and well into the history of united Italy. The "revival" of Italy was essentially a Northern movement, with Northern leaders and Northern troops, and was virtually imposed on the South. Nor, as has been maintained by some Southern historians, was the South "exploited" by the North after unification, for the South paid a smaller share of taxes to the national treasury than it paid of provincial and local taxes, and it received a greater amount of governmental expenditures for public works in proportion to its national tax payments than the North. Indeed, the state's effort to improve conditions in the more backward part of the nation is illustrated by the fact that whereas the South had only 7.2 per cent of the railway mileage of the country in 1861, it had 32 per cent of it in 1875.

In all respects the North appears to have had advantages over the South for receiving elements essential to economic growth in the great process of diffusion and subsequently for sustaining economic growth. Throughout the history of united Italy the range of opportunities for alternative decisions regarding the use of economic resources of every description has been greater in the North than in the South. The early industrial spurt of the North had a stimulating effect which increased the economic differences between the two parts of the nation. Only

[28] *Statistiche sul Mezzogiorno*, pp. 770, 790, 115.

TABLE 10

TAX RECEIPTS, 1871–1880 *

(millions of lire)

Kind of Tax	*South*	*Kingdom*	*Per Cent of South to Total*
National taxes			
Direct	1,025	3,759	27.3
Indirect on consumption	1,713	5,212	32.9
Indirect on business	461	1,541	29.9
Total	3,199	10,513	30.4
Provincial revenues	377	865	43.5
Local revenues	1,495	4,514	33.1

* Data derived from *Annuari del Ministero delle Finanze* (Florence: Stamperia Reale, 1871–1882); Ministero di Agricoltura, Industria e Commercio, Direzione delle Statistica, *Bilanci Provinciali Preventivi, Anni 1800–1881* (Rome: Ripamonti, 1882); *Idem, Bilanci Comunali 1800–1881* (Rome: Ripamonti, 1882); and Ministero dei Lavori Pubblici, Ragioneria Centrale, *I Pagamenti Fatti dallo Stato per Opere Pubbliche negli Esercizi Finanziari dal 1862 al 1897–1898* (Rome, 1900).

TABLE 11

STATE EXPENDITURES, MINISTRY OF PUBLIC WORKS, INCLUDING RAILWAYS

(thousands of lire)

Years	*South*	*Kingdom*	*Per Cent of South to Total*
1871–1880	457,266	1,002,681	45.6
1881–1890	527,267	1,769,039	29.8
1890–1898	277,804	833,896	33.3
1871–1898	1,262,337	3,605,616	35.0

recently, particularly since World War II, have earnest policies been initiated to raise the economic level of the South to a point somewhere near that of the North. This means, as is evident from the Vanoni Plan for Italy's economic development during the next ten years, a deepening of investment, primarily for the making of jobs for the most backward part of the country. Here is an interesting experiment in economic growth of a backward area that has few locational advantages for the establishment of the high-income earning segments of the economy, especially industry.

SHEPARD B. CLOUGH, *Columbia University*
and
CARLO LIVI, *University of Venice*

Notes and Review Articles

AUBREY ON INDUSTRIAL INVESTMENT DECISIONS

In his paper on "Industrial Investment Decisions: Analysis and Comparison,"[1] Henry G. Aubrey asks one major question: "Is the decision-making process different in underdeveloped countries from what it is in advanced ones?" Investment behavior might differ for either of two reasons. Investors in underdeveloped areas may be psychologically different; their basic motivation and behavior patterns may vary significantly from those of investors in advanced countries. Alternatively, with exactly the same psychological make-up, investors may behave differently because the institutional framework is different. In particular, they may be confronted with quite different incentives to invest. Profit records in the past may be less encouraging than in advanced countries; prospects for profit in the future may be less attractive; risk may be higher and uninsurable; uncertainty may be greater; or there may be a lack of factors complementary to entrepreneurship such as capital, resources, managerial and technical skills, and labor skills.

I

In answering his own question Aubrey first argues that we do not really know very much about the process of economic development. We certainly have a long way to go before we will have a satisfactory general theory. We are indeed far from agreement about the relative importance as *mainsprings* of economic growth of such broad historical phenomena as political revolutions and new religions; changes in social structures and culture patterns; invasions and geographic discoveries; "challenge and response." On the other hand, there is widespread agreement as to the main proximate factors in economic growth: technological progress, discoveries of new natural resources, capital accumulation, and population growth. We do not know as much as we would like about what lies behind these factors, but they are useful headings for analysis of particular situations.

In the two underdeveloped countries which I know best, Libya and Indonesia, it is possible to say that, considering the pattern of known resources and the amount of effort that has been devoted to exploration in the past, a greatly accelerated rate of resource discovery is unlikely in either country, but is more likely in Indonesia than in Libya. The chances for accelerated growth are accordingly better for Indonesia than for Libya. Probably in both countries an increase in the rate of population growth would be a drag on economic progress rather than a stimulus to it. Estimates can be made, within broad limits, of the rates of capital accumula-

[1] A paper read to the Economic History Association at Towson, Md., September 9, 1955, and published in THE JOURNAL OF ECONOMIC HISTORY, XV, No. 4 (December 1955), 335–51.

tion necessary to produce a certain rate of increase in per capita income. Technological progress in each country can be considerably accelerated for some time through imitation and adaptation of more highly productive techniques already in use elsewhere, more so in Libya than in Indonesia. These proximate factors provide guides for development planning, despite the lack of general theory of economic growth.[2]

II

The second part of Aubrey's answer is that we cannot learn very much from history since there is no reason to expect that the pattern of development of the now underdeveloped countries will be the same as it was in the advanced countries. Mr. Aubrey is unduly pessimistic. If historical research revealed that the process of economic growth was always the same, there would be very good reasons for projecting this process to the now underdeveloped countries. At worst, historical study can center attention on some strategic questions; such as these three: Can a large-scale shift of population from agriculture to industry take place with "carrots" alone, and without the "stick" which was provided in Europe by the Enclosure Movement? Can development start without an ideological (religious) revolution? Would a "Black Death" accelerate industrialization?[3]

I agree with Mr. Aubrey that the history of underdeveloped and currently developing countries, as well as the history of the now advanced countries, should be examined. I would add, however, that it is *growth* that needs explaining; stagnation is the rule. The kind of economic development that we have come to regard as "normal" is actually a phenomenon confined historically to a few countries in Europe and the New World during two or three centuries. Outside of these countries in these centuries, one finds millenniums of stagnation, only occasionally broken by spurts of economic progress.

III

The third part of Aubrey's answer is that the difference between the decision-making process in advanced and underdeveloped countries is not

[2] Compare B. Higgins, "Development Planning and the Economic Calculus," *Social Research*, XXIII, No. 1 (Spring 1956), 35–56.

[3] For Indonesia I would answer these questions as follows: (1) Large-scale shifts of population from agriculture to industry are possible without a "stick" if the "carrot" is big enough. The Department of Transmigration in Indonesia has 2,000,000 registrations from people wishing to migrate from Central Java to the Outer Islands. True, in Central Java there is a stick as well, in the form of destruction of the sugar plantations and refineries that provided a livelihood for so many people in Central Java before the war. (2) Definitely. (3) A sharp reduction in population would probably accelerate industrialization. The alternative is much larger-scale investment, probably larger than the country can finance alone at this stage, in those sectors of the economy which have been neglected in the past.

primarily psychological. The motivation of entrepreneurs in both types of environment is much the same; entrepreneurs in underdeveloped countries are not unaffected by "rational" (profit-maximizing) considerations. With this argument I heartily agree, but I would state it still more strongly. There is no less "irrational" motivation in advanced countries than in underdeveloped ones; "status," "prestige," and "face-saving" are as important in the West as in the East. Only the social framework differs, and the precise objects or situations which confer status and prestige or require face-saving are different. Moreover, the social framework can change very rapidly. I have the impression that in Indonesia the extended family, which tends to dilute incentives for saving, investing, restricting family size, and working harder, is rapidly breaking down in the face of new opportunities for Indonesians to raise their incomes through their own efforts in a new kind of social pattern.

The fourth part of Aubrey's answer is that the main reason for the different investment behavior in underdeveloped areas is greater uncertainty.[4] Under this heading, Aubrey first lists "limited demand." Limited demand, however, is not the same as uncertain demand. A restricted but certain market can provide a perfectly good basis for investment. In any case, I am not at all sure that demand in underdeveloped countries is limited in such a way as to constitute a serious barrier to investment. Of course, national incomes are relatively low, and total sales of goods and services cannot exceed gross national expenditure, but I doubt whether it is useful to describe a low national income as "limited demand." Both the average and the marginal propensities to consume are high in many of these countries. The price elasticity of demand for many goods and services is also high. Above all, the marginal propensity to import is high. One of my most vivid impressions in Indonesia was to see, far up the Barito River in Kalimantan (Borneo), junks loaded with imports: Australian butter, English jam, and Japanese fountain pens, watches, and textiles. The market for some of these commodities, such as textiles, is very wide indeed. Why not invest in such import-replacing industries? Limitation of demand cannot be the answer here.

The second factor of "greater uncertainty" listed by Aubrey is the uncertain number of competitors. Here too I have my doubts. Is the number of competitors really more *uncertain* than in advanced countries, where the turnover of firms is so rapid? I suspect that the reverse is the case. Policies such as the Indonesian one of "converting the colonial economy into a national economy" severely limit the number of competitors that a domestic investor need face.

[4] Aubrey uses the term risk; but he is referring to contingencies which are essentially uninsurable, and Frank H. Knight's distinction between risk and uncertainty seems to me one worth retaining in the literature.

The third factor of uncertainty listed by Aubrey is uncertainty about the proper technology. Here, again, I would agree but make the point stronger. No systematic large-scale research has yet been carried out to discover techniques which will increase productivity per man-hour without raising the ratio of capital to labor; yet these are the techniques that most underdeveloped countries need, and it is by no means sure that transplanting the highly capitalistic techniques of advanced countries would be universally profitable in underdeveloped ones.

Aubrey's fourth factor is "uncertainty" regarding capital requirements. Is it really a matter of uncertainty regarding capital requirements, or of certainty that capital costs are too high with traditional techniques? My impression is that so far as capital requirements are concerned purely technical factors explain much. Indonesia fits very well the model outlined by Mr. Richard Eckaus in his recent article on "The Factor Proportions Problem in Underdeveloped Areas." There are two sectors in the economy, one relatively capital-intensive and with relatively fixed coefficients; the other relatively labor-intensive but with relatively variable coefficients. Employment in the fixed-coefficient sector increases less than proportionately to investment, but population tends to grow more than proportionately to investment in response to initial increases in per capita income. Technological progress is of a sort favoring the fixed-coefficient sector. Disguised unemployment in the variable-proportion sector is the inevitable result, and the incentive for investment in that sector becomes more and more diluted as disguised unemployment grows.[5]

In the case of labor supply it is more a matter of *certainty* that there is a shortage of skills and that productivity is low than of *uncertainty* as to what the supply of labor or its productivity is going to be. I doubt that it is more difficult to estimate in advance the output per man-hour of a worker in a textile factory in Indonesia than it is that for a worker in an English textile mill.

As for cost calculations, these are uncertain mainly because of the role of government policy. Tax policy, labor policy, foreign exchange policy, and import policy are subject to frequent and substantial change. This is indeed a factor discouraging to investment. I also agree with Mr. Aubrey that the time horizon is short, for the same reason. Given the frequent changes of government and the accompanying changes in policy, it is difficult for investors to make long-run plans. However, this factor can be exaggerated. Indonesia has often been selected as an example of the severe political instability of underdeveloped countries. Yet an examination of Indonesian economic policy shows that the country is building up a "stability" of the

[5] See Richard Eckaus, "The Factor Proportions Problem in Underdeveloped Areas," and Benjamin Higgins, "The 'Dualistic Theory' of Underdeveloped Areas," *American Economic Review*, XLV, No. 4 (September 1955), 539–65.

French type; the very frequency of cabinet changes means that the top-level civil service exerts much control over policy, and the top-level civil service is relatively stable. Moreover, the trend is in the right direction; each successive government tends to last longer than its predecessor.

In sum, my conclusion would be that it is not so much a difference in *safety* of investment, as Mr. Aubrey contends, as it is a difference in *profitability*. True, with levels of income as low as they are, one could not have in Indonesia an automobile industry comparable to the American one. But why not an industry producing bicycles? Here there is an assured market. It is not so much the *scarcity* of information as it is the discouraging nature of the information available that limits investment.

BENJAMIN HIGGINS

REJOINDER

This rejoinder to the discussion by Benjamin Higgins can be brief because I am in agreement with much of what he says. If we differ on some points of emphasis this is all to the good, as the professed purpose of my paper was to provoke discussions of a working hypothesis that will undoubtedly be modified in the light of experience gathered in the field.

On the point of uncertainty, however, a few comments may be in order. In the first place, Mr. Higgins and, I fear, perhaps other readers may have been misled by the brevity of an argument that was a condensation of a much more elaborate one.[1] With regard to demand, for instance, the difficulties of ascertaining future levels, rather than an absolute limitation of demand, were the focus of my interest. In some cases, it is true, the size of the present market can be determined without trouble, although it may still be very difficult to estimate the future magnitude of demand to which the size of the plant ought to be geared. In other instances, however—and after exhaustion of the most manifest opportunities, they may well be the rule—uncertainty about the market would tend to aggravate the decision.

I also remain unconvinced that the estimation of labor productivity in a new industry is not a major obstacle to cost and price determination. One of the foremost disappointments encountered again and again in new enterprises—including the textile industry mentioned by Mr. Higgins—is precisely the difficulty of working up to predetermined productivity estimates. In

[1] Henry G. Aubrey, "Investment Decisions in Underdeveloped Countries" in *Capital Formation and Economic Growth*, a conference volume of the National Bureau of Economic Research (Princeton, N.J.: Princeton University Press, 1956), pp. 419–38.

fact, the variations and lags of productivity in textile mills, even in more advanced countries of the less developed type, continue to be a matter of the gravest concern among experts.[2] I should be very surprised to learn that Indonesia constitutes a happy exception from this nearly universal condition.

These uncertainties, in combination with others discussed in my aforementioned study, affect *actual* profitability less than the relation of *expected* risks to *expected* profitability in the minds of would-be entrepreneurs. Thus, while I welcome the contribution provided by Mr. Higgins' interesting discussion, I feel he does not do full justice to the subtle but cumulative influence of assorted uncertainties in various fields of information that are important for the achievement of positive investment decisions in most instances.

HENRY G. AUBREY, *Federal Reserve Bank of New York*

[2] For a large number of case studies see United Nations, *Labour Productivity of the Cotton Textile Industry in Five Latin American Countries* (1951).

AN INDEX OF THE OUTPUT OF BRITISH INDUSTRY SINCE 1700

I

There can surely be no disagreement about the value of production data to the economic historian; or about the lack of output statistics for Great Britain for the period since the beginning of the Industrial Revolution. We must therefore all applaud Mr. Hoffmann's attempting to provide indices of the production of British industry and of British industries since 1700.[1] His results are not new to us; published in an article more than twenty years ago, they were revised and expanded in the 1940 German edition of this work.[2] Both these sources have been frequently quoted and sometimes criticized, but they have not been accepted generally. Critical evaluation has been hampered hitherto—because the 1934 article told us nothing about the constituent series, and because the 1940 edition, when available, did not easily yield sufficient information about either the basic data or the methods of calculation for the series to be accepted without reservation. Thus Hoffmann's series were used but unproved. Accordingly we must be very grateful to Messrs. Blackwell and to Messrs. Henderson and Chaloner for this excellent translation, which exposes the series to the critical scrutiny of all English-speaking scholars.

The production series, which have attracted almost exclusive attention, are only a part of Hoffmann's work, and he regarded them as a mere preliminary to his study of the growth of British industry. That concern led him to omit a detailed discussion of the methods of calculation: "It has not been possible to justify in detail the methods used in arriving at our estimates of the output of every single commodity. If we had been able to do so, other scholars could have made an independent check of our calculations. Unfortunately this would have involved a very considerable expansion of an already lengthy appendix." (*British Industry,* p. 11, n. 1.) Also "Space does not permit us to go into detail concerning our method of calculating each individual weight. Such a procedure would only have involved continual repetition concerning methods of calculation." (*Ibid.,* p. 21, n. 2.)

The unfortunate effect of these decisions is aggravated by Hoffmann's vagueness in what he does tell us about his methods and by the irrelevancy and redundancy of the references given. I think, however, that there is sufficient information given to permit evaluation of his main series; and in

[1] *British Industry 1700–1950.* By W. Hoffmann. Translated by W. H. Chaloner and W. O. Henderson. Oxford: Basil Blackwell, 1955. Pp. xxiii, 330. 35*s.*

[2] W. Hoffmann, "Ein Index der industriellen Produktion für Grossbritannien seit dem 18. Jahrhundert," *Weltwirtschaftliches Archiv,* XL (1934, ii), 383–98; *Wachstum und Wachstumsformen der englischen Industriewirtschaft von 1700 bis zur Gegenwart* (Jena, 1940).

the following pages I shall list some criticisms of these series and try to come to some general conclusions about their usefulness.

II

Coal. While the proportion of coal sent by sea to London to total coal output is remarkably constant in the isolated estimates of 1750, 1770, and 1829, there is little justification for taking the former series as a substitute for the latter, particularly for the period before 1750. General experience, of the type to which Hoffmann so often appeals, suggests that it is very unlikely that the growth of any part should coincide with the growth of total consumption. London was a growing city, but surely it was not representative of the growing industrial regions of the country. Moreover, Hoffmann's own figures show a large divergence over the two shorter, but still fairly long, periods 1770–1795 and 1795–1829. Finally, on a purely visual judgment, I should not say that there is a close correspondence between the isolated figures collected by Gayer and Hoffmann's continuous series (both are plotted in Diagram 17, p. 231); to me there seems to be a divergence during cyclical fluctuations and, between 1815 and 1850, a discrepancy in trend.[3]

Iron and Steel. In the absence of any statement as to which years are imaginative interpolations, it is impossible to know how reliable are the fluctuations shown for the period 1800–1850. But, since Hoffmann claims—with more justice than in the case of coal—that his series corresponds to the isolated estimates collected by Gayer, it may be that, for cyclical purposes, his series is not a bad guide. Even here, however, it must be questioned whether he does not introduce an unjustified air of precision; for the contemporary estimates, though made with care, were not always based on direct returns but on adjustments of estimates of capacity.

For the period after 1850 there exist fairly good returns of production; but there are difficulties. It is not stated anywhere what allowance is made for the use of scrap in the making of steel—a variable factor in both the short and the long run. And there is the question of quality: some steel is bought by the pound and some by the ton, and a ton of the average steel produced in 1856 cannot be regarded as the equivalent of the average steel produced in 1880. There were also changes in the quality of iron produced. In both cases there was probably no simple trend: in the third quarter of the century the trend was toward the cheaper grades; in the fourth this trend was halted or even reversed.

[3] Professor T. S. Ashton, *An Economic History of England: the Eighteenth Century* (London, 1955), p. 124, uses the exports of the Northern field as a guide. He uses them to demonstrate that there was a substantial increase in production. But that is all; and he states that it is his opinion that the inland coal fields were growing more rapidly.

See also, A. D. Gayer, W. W. Rostow, and A. J. Schwartz, *The Growth and Fluctuation of the British Economy, 1790–1850* (Oxford, 1953), p. 693.

Iron and Steel Products. If there are serious objections to the estimates of iron and steel output, any estimates derived from them must be open to at least as much suspicion. But there are other, perhaps stronger, objections to the estimates of engineering output, which Hoffmann assumes can be represented by the weight of metal used—a quantity that he in turn estimates, for the period after 1800, by adding imports to, and subtracting exports from, his estimates of the weight of iron and steel produced. This assumption, that weight consumed is representative of output, ignores the wide variations between the sectors of the engineering industry in the amount of work performed on each ton of metal. Some idea of this variation can be obtained from the variations in prices: rails, ship-plates, and girders sold for £5 to £10 per ton, while much machinery sold for £40 or more per ton. Now the proportionate importance of these different sectors did vary considerably in Britain during the nineteenth century—particularly because of the changes in the importance of rail and ship production. Mr. Hoffmann's references to American experience are not convincing: his figures are of the ratio of raw-material costs, rather than raw-material weight, to output; the proportionate importance of the different products was probably steadier in the United States than it was in Britain, because of the huge change in the structure of Britain's export market; and the figures cited would in any case considerably modify his crude series.[4] For the period 1786–1800, for which Hoffmann has made no estimate of the British production of iron and steel, it is surely quite unjustified to use net imports of iron and steel as a substitute series.

Shipbuilding. Hoffmann uses tonnage produced as an indicator of output and ignores the change in value per ton that came with the substitution of steam for sail, justifying his neglect by saying that the substitution was a steady process. But the substitution was not steady—or even continuous.[5] And even if the substitution had been steady, there would still not have been a valid reason for ignoring it in producing an index that purports to show long-term rates of growth.

Woolen and Worsted Cloth. For the whole of the period 1780–1820 Mr. Hoffmann uses the output of the West Riding as representative of the production of the whole of Great Britain and defends this with a characteristic *non sequitur*: "It would be possible to do this only if it could be shown that the output of the West Riding was a constant proportion of the total British output during the period in question. It is true that in the eighteenth century other districts besides the West Riding produced woollen cloth. Nevertheless the West Riding was the most important centre even at

4. The index of engineering production is founded on much worse material and constructed with very much less care than the one recently disowned by Professor A. K. Cairncross, *Home and Foreign Investment, 1870–1914* (Cambridge, 1953), p. 158.

5 See the statistics given in "The Third Fiscal Blue Book," *British and Foreign Trade and Industry 1854–1908*, in *Parliamentary Papers*, 1909, CII (Cd. 4954), pp. 806–7, Table 44.

that time." (*British Industry,* p. 259.) Is it not the case that the West Riding was expanding aggressively at the expense of other districts? [6]

In the period after 1820 wool consumption is used to estimate the production of yarn, and this is used to estimate the production of cloth by subtracting the net exports of yarn. This ignores changes in the proportion of yarn that went to the hosiery, knitting-wool, and carpet industries. More important, Mr. Hoffmann denies that the proportion of mixed goods in the total output of the industry varied. Yet it is known that the phenomenal boom of the Bradford district in the fifties and the sixties owed much to the adoption of a cheap worsted containing a third of cotton by weight, and that from the seventies the relative importance of this trade declined. It might also be questioned whether there were not some systematic trends in the quality of woolen goods produced: a decline in the fifties, an improvement from the 1870's.[7]

Cotton Yarn and Cloth. The index for the production of cotton yarn is derived directly from the statistics of retained imports of cotton. For cyclical purposes this index must be used with some caution because of variations in the stocks of raw cotton. For secular purposes it is open to the objection that there were changes in the quality of yarn produced (associated with the growing importance of the Eastern trade); and the fact that there is no precise quantitative information about these changes does not justify ignoring them.

The index for the production of cotton cloth is derived from the index for cotton yarn by making allowances for the loss of weight in manufacture and for exports. The possibilities of stock variations in yarn do not seem important—except insofar as changes in the production of yarn may have to precede changes in the production of cloth. There are, however, bigger

[6] See H. Heaton, *The Yorkshire Woollen and Worsted Industries* (Oxford, 1920), p. 258, and J. H. Clapham, "The Transference of the Worsted Industry from Norfolk to the West Riding," *Economic Journal,* XX (1910), 195–210, for the rise of the Yorkshire industry at the expense of the rest of the country.

R. P. Beckinsale, "West of England Textile Industry" (unpublished D.Phil. thesis, Oxford Univ.), pp. 86–87, states that the West of England industry stagnated completely in the closing years of the eighteenth century because of competition from Yorkshire.

Miss Phyllis Deane, of the Department of Applied Economics, Cambridge University, tells me that after studying contemporary estimates she has no doubt at all that Yorkshire's share did increase. Miss Deane also makes the further important point that the series used by Hoffmann, broad and narrow cloths, may cause him to overestimate the growth of output in Yorkshire if, as seems probable, the proportionate importance of these cloths increased there.

[7] The published histories of the Yorkshire trade are not adequate for the period after 1850, but in what is available there is general agreement on the story of Bradford's boom and subsequent depression. See, for example, the articles that appeared in the *Bradford Observer* in November and December 1883. For Bradford in the period before 1860, see the chapter by E. Sigsworth in C. R. Fay, *Round About Industrial Britain 1830–1860* (Toronto, 1952), pp. 114–31. Another good source on the boom phase is E. Baines, "The Woollen Manufactures of England," a paper read to the British Association in 1858 and revised and reprinted in Baines, *Yorkshire Past and Present* (London, 1871).

objections: first, that no attention is paid to changes, in either the short or the long period, in the proportionate importance of other sectors—sewing cotton, hosiery, and mixed woolen and worsted cloths—as consumers of cotton yarn; second, that for the period 1780–1800 no allowance is made for the declining proportion of linen yarn used by the cotton-weaving industry, although such a decline is mentioned on page 257. If this decline were allowed for, the spectacularly high rates of growth might be confined to the spinning sector.

Building. There can be no question that, in the returns made of the number of bricks on which duty was paid, Mr. Shannon discovered a most valuable indicator of the fluctuations of the building trade.[8] But bricks do have substitutes. In the short run a divergence in the fortunes of stone- and brick-building districts might make his returns unrepresentative. More important, it is unlikely that the proportion of brick to stone building was at all constant in the long run. *Prima facie* it seems that the proportion of bricks used in building would increase both because of the building of an increased proportion of urban dwellings for the poorer classes and because the transport revolution was more favorable to the production of bricks than to the production of stone.

Yet we certainly know a great deal more about the amount of building before 1850 than after 1850. Hoffmann makes no claim that his estimates for the latter period are of any use as guides to fluctuations, because they are based on the decennial increases revealed by the censuses. To this use of the census data there is the objection that it only allows for the *net* increase in the stock of houses and consequently makes no allowance for changes in the proportionate importance of replacements and repairs. More serious than this is the objection that housebuilding was not at all representative of total building construction. Building construction that took the form of public building, factories, public utilities, and shops was probably of increasing proportionate importance in the second half of the century.[9]

The conclusion that I reach about the individual series, then, is that, before 1850 certainly and after 1850 probably, they ought to be used only with very great caution as indicators of cyclical fluctuations. They are sometimes based on estimates that have a margin of error that is large in comparison with yearly increases: the use of "substitute" series, that is, the use of series of raw-material inputs, is open to the objection of the possibility of stock changes; and the use of "representative" series, for example, the use

[8] H. A. Shannon, "Bricks—A Trade Index, 1785–1849," *Economica,* n.s., I (1934), 300–18.

[9] A good deal more information on the period after 1870, both about housing and the investment of local authorities, is to be found in A. K. Cairncross, *Home and Foreign Investment,* pp. 142–58. The most recently published paper on housebuilding is B. Weber, "A New Index of Residential Construction, 1838–1950," *Scottish Journal of Political Economy,* II (1955), 104–32. But inclusion of these sources, though it would improve the Hoffmann estimates, would still leave them a very far from perfect guide to total building activity.

of coal shipments, to the objection that they are very far from being representative.

For the long run, that is, for those purposes for which Hoffmann himself requires them, the series seem to me to be open to objections that are at least as serious. Again his "representative" series are most unlikely to be representative; and the usefulness of series of physical inputs is impaired by quality changes.[10] This is not to say that it is impossible to obtain good evidence that output increased—that is a question usually very easily resolved. But the series are not sufficiently reliable for percentage rates of growth to be so accurately computed that the beginning of a decline in the rate of growth can be dated with any confidence.

The series to which I have stated objections have between one half and two thirds of the total weight of the aggregate series. My list of objections is not an exhaustive catalogue—even for the series considered; and since the criterion of selection was importance rather than openness to objection, the other series are likely to be equally disputable. Even though, in aggregation, errors of some types may systematically cancel one another out, and errors of other types may chance to cancel one another out, the cumulative weight of the objections stated is surely large enough to place the aggregate series under very grave suspicion.

Again, while the absence of precise information about the sources and calculation of the weights used makes it impossible to give specific criticisms, one does wonder whether weights of any reliability can be obtained for the period before 1907.[11]

III

Yet, in addition to these objections to the individual series and the weights that form the aggregate series, there are at least two objections, one of them very serious, to the method by which the aggregate series was produced. On page 15 a process of "linking" is cumbersomely described. The purpose of this process is to allow for the changing relative importance of different sectors by a periodic reweighting, without interrupting the continuity of the series. The process is simply that which is elsewhere known as "splicing": series with components of constant weight are calculated for periods that overlap by one year. A comparison of the two different figures for the year of overlap gives the ratio by which the members of one series must be adjusted

[10] This problem of quality changes is all-pervasive. Perhaps even the quality changes of so apparently homogeneous a commodity as coal ought not to be neglected. It may be that the decline in the rate of growth of tonnage mined was offset by increasing proportions of washed coal and of steam coal—both more valuable types.

[11] Fairly reliable weighting is possible for 1907 because the first census of production was held in that year. *Final Report of the First Census of Production of the United Kingdom*, in *Parliamentary Papers*, 1912–13, CIX (Cd. 6320), 1.

before they are at all comparable with members of the other series. It must however be emphasized that the process is not a perfect smoothing: it does not alter the fact that there is an abrupt change from one set of weights to another that vitiates any differentiation of the series (in the mathematical sense) in the region of the link. And it must be pointed out that Hoffmann, because he is concerned not only with rates of growth but also with the dates when those rates of growth change, needs to be able to differentiate his series not once but twice.

This objection is, however, much less important than another—to the influence of the "smoothing" on the calculated long-term rate of growth. Let us suppose that the industries included in the index do not have the same rate of growth as the industries excluded. Then the calculated rate of growth of the whole economy will not be representative of all industries. Hoffmann *appears* to meet the possibility of this happening by giving to the industries included in his index weights that do not add up to one hundred. Thus he seems to allot the remainder of the hundred to "other industries." But within each weighting period, so long as weights are kept constant, the rate of growth for all industry is still the average rate of growth of those industries for which data are available—because two series differing by a constant proportion have the same percentage rate of growth. At those points where the weights are altered and allowance is made not only for the changed relative importance of individual industries but also for the change in the relative importance of the industries excluded—by altering the total of weights allotted—adjustments seem to have been made. But this periodic correction is rendered nugatory because the dates of reweighting are the dates when the series are "smoothed." Thus the fact that the weights given do not add up to one hundred has no effect on the calculated rate of growth. If the industries taken have a higher rate of growth than those excluded, then the rate of growth of the economy will be overestimated. This is surely the case for the period before 1850, when all the important growing export industries are included and, inevitably, the smaller home industries are excluded. Conversely it is possible that for the end of the century, when there was an increasing concentration on new industries producing for home consumption, the rate of growth is underestimated.[12]

[12] Perhaps a simple, if rather lengthy, numerical example may make this point clear.

Let us suppose that an economy has only two sectors, A and B. Annual production data are available for sector A, whose output grows from 100 units in year O, to 200 in year XV, to 400 in year XXX—a percentage rate of growth of 5 per cent per year. Annual data are not available for B, but it is known that in years O, XV, and XXX its output was 100 units; and this knowledge is used in the reweighting of the constituents of the aggregate index in those years.

For the first period, industry A will be weighted 50 in the total index, and if the index of aggregate production in year O is 100, it will be 200 in year XV. For the second period, XV to XXX, industry A will be weighted 66⅔, and the index of production in this period will increase from 150 in XV to 300 in XXX; when the weights are revised again in XXX,

On the ground of the last, and also earlier, objections, it seems probable that the picture of increasing, followed by declining, rates of growth in the British economy between 1760 and 1914 ought to be substantially modified. Not completely: for the shape is probably right. But the estimates of the rates of growth and of the dates when increasing rates of growth changed to declining ones do need substantial revision.

IV

Since the data are unsound, it seems unnecessary to take space to criticize the conclusions drawn from them. And it does seem rather unfair to attack the details of what was written for another audience nearly twenty years ago. Let me say merely that time has shown how wrong was the decision to sacrifice the sound establishment of the basic data for the presentation of conclusions—a presentation, poorly executed, of conclusions that can hardly be described as sensational. It is unfortunate that Mr. Hoffmann did not have the time to prune and revise his original text for this edition. He has added a little about British output since 1935 but he has not dealt any more fully with points that, as he has shown elsewhere, he realizes to be of interest.

Take, for example, the distinction drawn between "consumer goods" and "producer goods." In an article published in 1949, Hoffmann makes it quite clear that he intends this to correspond to the distinction between "consumption goods" and "investment goods"; but in the book no attempt is made to solve the problem of allocating raw materials and semifinished goods between the two categories. The division adopted is very arbitrary: building is a "consumer good"; coal a "producer good." [13]

A will be given a new weighting of 4/5 and the index for XXX will be 250. Within each period, therefore, the procedure adopted would produce an overestimate of the rate of growth of the whole economy (roughly 5 per cent per year instead of the true rate of under 3 per cent in the first period and under 3½ per cent in the second). There is still the effect of the revision of the weights to be considered; but before it can be considered we have also to apply the "smoothing" procedure to our results. If we decide to retain year O as our base year, the smoothing procedure will require the multiplication of all indices for the period XV to XXX by that multiple which is needed to make the second estimate of year XV coincide with the first, *i.e.*, by 4/3. We finish with a series in which the index rises from 100 in O to 200 in XV to 400 in XXX. The overestimates of the short series have thus been perpetuated in the final, longer, series because the "smoothing" procedure has an effect that is equal and opposite to the effect of the periodic changing of the total weights of the included series.

[13] In pointing out this serious error, I do not wish to imply that there is an easy alternative method of constructing an index. Any attempt to make the total of weights have operational significance raises the further problem, "How ought the total of weights to be calculated?" Hoffmann's weights, which are based on employment, take into account changes in productivity as well as changes in production and would still lead to disputable estimates of the over-all rate of growth. Thus, for example, if all the industries included in the index increased both in production and in productivity by 5 per cent per year while all other industries completely stagnated, the relative weightings of the two groups would remain the same with the consequence that the estimate of the over-all rate of growth would also be 5 per cent.

Or take some questions fundamental to Hoffmann's whole approach. What is particularly significant about changes in proportionate rates of growth? What is the special significance of the date when the proportionate rate of growth begins to fall? Has not the level of the rate of growth a good deal more importance than slight increases or decreases of it? I do not want to imply that these questions are unanswerable, only that they ought to be mentioned. Like that of so many empiricists, Mr. Hoffmann's method seems to consist in the mechanical application of the most easily used criteria rather than those that are economically most significant.

V

Finally, the question arises whether it is possible to establish a satisfactory index of British industrial output. There are sources which Mr. Hoffmann did not exhaust, notably the excise returns; and in recent years some careful work has been done on the output of the building trades.[14] It may be that it will be possible to produce less objectionable estimates for other important commodities. But when all this work is done, it may still be that—at least for the period before 1850—there is not sufficient accurate information to produce the sort of series that Hoffmann was aiming at.[15] If so, it seems to me better to confess our ignorance than to invest the chance results of speculative calculations with the prerogatives of the printed figure, when all that can be said about these results is that there are a good many reasons why they should be wrong.

Concentration on the search for purely quantitative information, though it may lead to the neglect of some important sources, has produced and will produce much that is valuable. But those who adopt the motto "Science is measurement" ought always to remember that measurement is not scientific unless there is a careful analysis of methods employed and a continual assessment of margins of error.

J. F. Wright, *Trinity College, Oxford*

The answer to this problem is, of course, that if we know only the relative employments of the two sectors and the change of production in one sector, we cannot know the over-all change. The best we can do is to assume that the sector we do know about is representative of the whole economy—an assumption that in many cases will be highly disputable.

[14] W. Hoffmann, "The Growth of Industrial Production in Great Britain: A Quantitative Survey," *Economic History Review*, n.s., II (1949), 162–80. It cannot be claimed that the topic receives adequate treatment in the article; but it, together with the next topic, are at least mentioned there.

[15] See n. 9 above.

Editors' Notes

CENTRE DE RECHERCHES HISTORIQUES

The readers of the JOURNAL will be interested in the following list of publications of the Centre de Recherches Historiques of the VI[e] Section of the Ecole Pratique des Hautes Etudes. The VI[e] Section is only seven years old, but has succeeded in that short time in stimulating, assisting, and publishing an exceptionally rich body of studies in social and economic history. Most of these deal with the late medieval and early modern period, reflecting the interest and inspiration of the Director, Professor Fernand Braudel of the Collège de France. One of the latest additions to the program has been the translation into French of important foreign works in the field of economic history; insofar as these are in one of the Slavic languages, or in some other relatively inaccessible tongue, all Western scholars are indebted to the Centre. All in all, more than forty works—of generally high quality—will have appeared under the auspices of the Centre by the end of this year: a most impressive performance which reflects the animation and fruitfulness of French research today. As yet, the JOURNAL has reviewed only a small number of these works; we hope to correct this in the coming issues. In the meantime, the general list may be useful to those working in this area.[1]

I. *Ports and Trade Routes:*

1. F. Braudel and R. Romano: *Navires et marchandises à l'entrée du port de Livourne (1547–1611).*
2. V. Chomel and J. Ebersolt: *Cinq siècles de circulation internationale vue de Jougne.*
3. R. Romano: *Le commerce du royaume de Naples avec la France et les pays de l'Adriatique au XVIII[e] siècle.*
4. M. Mollat: *Comptabilité du port de Dieppe au XV[e] siècle.*
5. E. Trocmé and M. Delafosse: *Le commerce rochelais de la fin du XV[e] au début du XVII[e] siècle.*
6. H. and P. Chaunu: *Séville et l'Atlantique de 1504 à 1650* (Vols. I–III published; Vols. IV–V in press; three more volumes in preparation).
7. J. Tanguy: *Le commerce du port de Nantes au début de la seconde moitié du XVI[e] siècle.*[2]
8. R. Romano: *Commerce et prix du blé à Marseille au XVIII[e] siècle.*[2]

II. *Business and Businessmen:*

1. A. Sapori: *Le marchand italien au Moyen Age* (conférences et bibliographie).
2. M. Mollat: *Les affaires de Jacques Coeur: Journal du Procureur Dauvet,* Vols. I–II.
3. M. Baulant: *Lettres de négociants marseillais: les frères Hermite (1570–1612).*
4. R. de Roover: *L'évolution de la lettre de change du XIV[e] au XVIII[e] siècle.*

[1] The publishing house in all cases is Armand Colin, Paris.
[2] Scheduled to appear in 1956.

5. G. Mandich: *Le pacte de ricorsa et le marché italien des changes au XVII^e siècle.*
6. G. Sicard: *Les Moulins de Toulouse au Moyen Age.*
7. H. Lapeyre: *Simon Ruiz et les Asientos de Philippe II.*
8. H. Lapeyre: *Une famille de marchands: les Ruiz.*

III. *Money and Prices:*

1. C. Cipolla: *Mouvements monétaires dans l'Etat de Milan (1580–1700).*
2. E. Labrousse: *Tableau des prix du froment en France (1800–1872).*[3]
3. V. Magalhães Godinho: *Prix et monnaies au Portugal, 1750–1850.*
4. F. C. Spooner: *L'économie internationale et les frappes monétaires en France, 1493–1680.*[2]

IV. *Bibliothèque générale de l'Ecole pratique des Hautes Etudes:*

1. G. Gurvitch, ed.: *Industrialisation et technocratie.*
2. G. Leduc, ed.: *Industrialisation de l'Afrique du Nord.*
3. G. Friedmann, ed.: *Villes et campagnes.*
4. P. Francastel: *L'art mosan.*
5. G. Duby: *La société maconnaise aux XI^e et XII^e siècles.*
6. G. Roupnel: *La ville et la campagne au XVIII^e siècle.*
7. Ibn Iyas: *Journal d'un bourgeois du Caire,* trans. and ed. by Gaston Wiet.[3]
8. G. Thuillier, *L'économie industrielle du Nivernais au XIX^e siècle.*[2]

V. *Translations of Foreign Works:*

1. S. Hoszowski: *Les prix à Lwow au XVII^e siècle.*
2. R. Ehrenberg: *Le siècle des Fugger.*
3. G. Mankov: *Les prix en Russie au XVI^e siècle.*[2]

VI. *In Collaboration with the Société Marc Bloch:*
Cahiers des Annales:

1. Sardella: *Nouvelles et spéculations à Venise au début du XVI^e siècle.*
2. C. Morazé: *Trois essais sur histoire et culture.*
3. Marc Bloch: *Apologie pour l'histoire, ou métier d'historien.*
4. *A travers les Amériques latines.*
5. G. Friedmann: *Humanisme du travail et humanités.*[4]
6. L. E. Halkin: *Initiation à la critique historique.*
7. G. Debien: *En Haut-Poitou; défricheurs au travail (XV–XVIII^e siècles).*
8. A. Tenenti: *La vie et la mort à travers l'art du XV^e siècle.*
9. Marc Bloch: *Esquisse d'une histoire monétaire de l'Europe.*
10. A. Koyré: *Réformateurs allemands du XVI^e siècle.*
11. *A l'aube de la science moderne.*[3]

VII. *Miscellaneous:*
Eventail de l'histoire vivante: hommage à L. Febvre.

[3] In press.
[4] Out of print.

Readers of the JOURNAL will be interested to learn of the appearance of a new review, *Economia e Storia,* under the editorship of Amintore Fanfani, in Rome. The first issue was that of June–September, 1954, and has since been followed by three more. The contents indicate a serious effort to produce a publication of more than Italian significance. Among the contributors to the early numbers have been Paul Harsin ("La creazione della Compagnia d'Occidente, 1717"), Fernand Braudel ("Note sull' economia del Mediterraneo nel XVII secolo"), and John Nef ("La riforma protestante e l'origine della civiltà industriale").

It would be hard to single out for comment the more important of the articles, which are of an unusually high quality. Note, among others, an essay by Gino Barbieri of the University of Bari on the attitude toward wealth of early Christian writers; by Paolo Brezzi of the University of Naples on the social and occupational composition of the early Christian communities; by Giuseppe Mira of Perugia on tax assessments in Perugia from the thirteenth to fifteenth centuries; and by Frederico Melis of Cagliari on costs in the Italian wool industry at the end of the fourteenth century.

In the light of its publications to date, the journal promises to be one of the best in the field, and a necessity to the well-equipped university library. The price of a subscription in the United States is 3,000 lire, about $5.00, per annum.

* * *

The International Institute for Social History in Amsterdam has announced its intention of publishing an international review of social history beginning in 1956. For editorial purposes the Institute defines social history as the history of social groups and classes. Contributors will not be restricted as to country or period, and even analyses of contemporary problems will be acceptable if they otherwise satisfy the standards of the journal. The editors expect to publish three times a year, with articles in English, French, and German. Manuscripts and correspondence should be addressed to the Director of the Institute, Professor A. J. C. Rüter, Keizersgracht 264, Amsterdam, Holland.

* * *

The following bibliographies and guides to research materials, though not intended primarily for research in economic history, contain numerous references to sources, secondary works, and periodicals which may be of interest to readers of the JOURNAL.

Maritime and Naval History: An Annotated Bibliography. By Robert Greenhalgh Albion. Rev. ed. Mystic, Conn.: Marine Historical Association, 1955. Pp. v, 94. $2.00. This contains references to materials on many subjects of interest to economic historians.

A Bibliography on South American Economic Affairs: Articles in Nineteenth Century Periodicals. By Tom B. Jones, Elizabeth Anne Warburton, and Anne Kingsley. Minneapolis: University of Minnesota Press, 1955. Pp. xv, 146. $5.50. Over 9,000 entries, of which more than 6,200 are unique, are arranged by countries and also by topics, such as agriculture, communications, transportation, immigration, finance, labor, mining, etc.

Records of the War Relocation Authority. Comp. by Estelle Rebec and Martin Rogin. (The National Archives of the United States; Preliminary Inventories: Number 77.) Washington, D.C.: The National Archives Record Service, General Service Administration, 1955. Pp. 22 with App. I and II. It analyzes the scope and nature of these records and indicates their availability.

Records of the National War Labor Board (World War II). Comp. by Estelle Rebec. (The National Archives of the United States; Preliminary Inventories: No. 78.) Washington, D.C.: The National Archives Record Service, General Service Administration, 1955. Pp. vii, 139 with App. I, II and III. This publication describes the records of the N.W.L.B., regional boards, commissions, and panels.

International Bibliography of Economics (Works Published in 1952). Paris: UNESCO, 1955. Pp. 429. $7.50 (paper). This is a comprehensive international list in French and English, excluding theses, on all aspects of economics, prepared by the International Committee for Social Science Documentation. It is comparable to the *International Bibliography of Sociology*. Not annotated.

Reviews of Books

AGRICULTURE

Food and Agriculture in Britain 1939–1945: Aspects of Wartime Control. By R. J. Hammond. (Publication of the Food Research Institute of Stanford University.) Stanford: Stanford University Press, 1954. Pp. xii, 246. $5.00.

The author of this study of British wartime food control has also written a volume in the official "History of the Second World War" *(Food: The Growth of Policy* [1951]). The present work is more analytical and includes brief evaluations of food policies and their administration. It also throws light on broader problems of agriculture and peacetime economic controls.

As the subtitle suggests, the book deals with several diverse topics related to war controls. Half the chapters are concerned with the development of control machinery and administration. Interspersed are chapters on agricultural production, stocks, nutrition, and mass feeding (especially in time of air raids). The author frankly admits that the chapters on food production are inadequate because written without access to the records of the English and Scottish agricultural departments. Overseas purchasing operations are omitted, except for a brief reference in connection with food stocks. It is difficult, therefore, to get a clear picture of the food situation at any particular time. The book, in fact, reflects the confusion of thought and difficulty of action that inevitably arose in the attempt to subject food production and distribution to government control. The author is strongly impressed with the "recalcitrance of real life in face of the planner with his blueprint."

The British were fortunate in having made complete plans for food control before the outbreak of war. But no sizable stockpiles had been acquired except for 300,000 tons of whale oil, sufficient to provide edible fats for two years. On the other hand, agricultural policy had not been planned, and the prices of farm produce rose rapidly during the first six months of the war. In fact, there was considerable confusion until Lord Woolton became Minister of Food (March 1940) and the Churchill cabinet came to a decision on agricultural policy. Better press relations were developed and better administration established as the civil service officials and the businessmen in the ministry learned to take their places in the machinery.

The policy of stimulating agricultural production by higher farm prices and wages was adopted. Prices to consumers were stabilized and the Treasury covered the difference. This policy of food subsidies kept inflation in check by preventing demands for higher wages in industry. The tillage area was increased by nearly two million acres. The labor shortage was solved by the Women's Land Army, by greater use of tractors, and by employment of children and prisoners of war. The number of livestock declined sharply because of the fall in imports of feed, but later increased as more feed was grown. Thus, with the aid of lend-lease, the British people (especially the children) were better fed than before, because of more even distribution of essential foods, especially milk and orange juice.

Fair sharing of available commodities was the main purpose of rationing and registration of consumers. These forms of control also helped to check inflation and stabilize prices. The higher authorities, including the prime minister, were slow to recognize the necessity of rationing (although ration books had been printed before war began). Eggs and milk were only "quasi-rationed," and bread was not rationed until after the war (1946–1948). Mr. Churchill urged his colleagues to remember that the United Kingdom was "a modern community at war, and not Hottentots or Esquimaux," and often opposed unnecessary bureaucratic encroachments on individual liberty. Actually sugar was the only staple food the supply of which was severely cut, although at times meat, fish, and eggs were inadequate in amount and uninviting in taste. The principal innovation in control technique, points rationing, was borrowed from Germany via the "academic" economists of the cabinet secretariat.

Attempts to use food control to reform distribution were largely unsuccessful. A limited reorganization of milk marketing was carried out, resulting in more rational use of supplies and transportation. Elaborate marketing schemes for onions, carrots, eggs, and fish had very little success either in assuring supplies or in keeping prices down. Potatoes defied all planning, veering from glut to scarcity and back. Concentration schemes for food manufacturing were intended mainly to economize man power, but the author questions their necessity or success. Zoning schemes, intended to prevent crosshauling, ran into all sorts of practical difficulties, but saved millions of ton-miles per year.

Food control necessarily affected consumption habits. Nutritionists, who had been concerned with the poor diet of the lower classes, hoped to improve it by government action. Fresh milk and baby food were provided at reduced prices for children under five and for expectant mothers. Later, cod-liver oil and currant or orange juice were similarly provided. Although many parents did not purchase their allotments, the policy had a good educational effect. There was no evidence of deficiency diseases on any considerable scale. Although milk and other necessities were sometimes given outright to indigent persons, working-class abhorrence of the means test prevented free food for the very poor. Since nearly all working-class men were employed full time, the main welfare effect of food policy was to shift consumption to foods considered more desirable or more available. To tax Father's tobacco in order to reduce Mother's food bills may have had certain merits besides reducing the official index of the cost of living and hence limiting wage claims. The children, at any rate, were benefited by higher taxes on beer and lower prices for milk.

Although he acknowledges certain incidental benefits of war control, the author regards control as at best a necessary evil. He declares that British experience gives no support to the idea that the techniques of economic planning and control have been or can be perfected. Many examples cited demonstrate the complexity of economic organization, the hazardous nature of planning, and the difficulties of control administration.

WILLIAM C. MALLALIEU, *University of Louisville*

Can We Solve the Farm Problem? An Analysis of Federal Aid to Agriculture. By Murray R. Benedict. With the Report and Recommendations of the Com-

mittee on Agricultural Policy. New York: Twentieth Century Fund, 1955. Pp. xix, 601. $5.00.

The principal concern of this large volume is more adequately indicated in the subtitle than in the title. It represents an extension and elaboration of the author's earlier study, *Farm Policies of the United States, 1790–1950* (1953), although this study is confined largely to the last two and one half decades. The author seems to proceed from the unstated assumption that if the farm "problem" is to be "solved," only the Federal government can solve it, for this study is much more concerned with description, analysis, and evaluation of Federal farm policies during the last decades than with the position of farming in the American economy.

The first two chapters are devoted to a brief statement on the causes and the nature of the farm problem and the characteristics and the economic importance of agriculture. ("The problem is how to make certain needed adjustments associated with the tapering off of the abnormal war and post war demand and how to maintain stability and prosperity in the years ahead" pp. 14–15.) The following nine chapters deal largely with Federal and other organized efforts to improve American agriculture. Chapter 11 suggests the conclusions that Mr. Benedict thinks can be drawn from two decades of experience with Federal agricultural programs. The last chapter presents a long general statement by the advisory committee and a short, perceptive minority report by Donald Murphy of *Wallaces' Farmer* and Harry B. Caldwell, Master of the North Carolina Grange. The book also contains two useful appendices, the first dealing with the concept of parity, and the second presenting helpful tables from the Department of Agriculture showing the cost of the farm program since 1932. This study provides an eminently useful summary of a vast amount of complex data and as such is most welcome to all who want a convenient and reliable handbook on Federal agricultural programs.

But anyone seeking to find here an answer to the question raised in the title is doomed to some disappointment. The author seems to believe that the principal ingredients of the problem are the farm surpluses and the fact that we have been living in abnormal times, particularly during the last two decades. This is true enough, but it does not strike directly at the heart of the matter.

For more than a century American farmers have been urged to raise two blades of grass where one grew before. To this end, the land-grant colleges, the experiment stations, and all the vast attendant mechanisms of research and education have been created. A host of other forces have moved in the same direction. In consequence, the American farmer by the mid-1950's is not only raising two blades of grass where one grew before, but he is often producing a whole bale. Scattered examples suggest how agriculture has changed and how rapidly in recent years. Up to the 1940's, stockbreeders used one bull to serve about fifty cows. In 1954, one bull belonging to a Wisconsin breeders' co-operative was used for the artificial insemination of 25,000 dairy cows. In 1910 it required an average of 22.6 hours of labor to produce one acre of grain corn in southern Minnesota; by 1954 the labor required for this task had been reduced to six hours. In 1940–1944 the average production of potatoes per acre in Langlade County, Wis.,

was 126 bushels; by 1954, thanks to the use of commercial fertilizer, improved seed, insecticide, portable irrigation rigs, flame throwers, and heaven knows what else, the average yield had increased to 299 bushels, and yields exceeding 500 were not unusual. In 1955, one Wisconsin corn producer broke through what the Milwaukee *Journal* called the 300-bushel barrier. Such figures, although unrepresentative, suggest the potential productivity of American agriculture. They underscore the fact that, barring phenomenally bad weather, potential productivity has reached a point comparable to that of some industries which are capable of engulfing us with goods if they do not restrain themselves.

Similarly, when one turns to consider the claims that we have been living in abnormal times which have prevented the ordinary marketing and other adjustments to take place, one finds that this assumes an earlier stability that probably did not exist in fact. Even such a crude device as the Census figures suggests how extensively agriculture has been changing over the years. The first agricultural census of 1850 reported 1.449 million farms. The number increased steadily to 6.812 million in 1935. Since that time, the number has decreased to 5.379 million in 1950 and an estimated 4.8 million in 1955. Moreover, one analysis of the Census figures showed that 44.3 per cent of the farms accounted for only 4.4 per cent of the products sold that year. The sale of products from these farms was $720 or less, mostly less. Only about three fifths of the total number of farms operated in 1950 could be called commercially important producers. On the upper end of the scale, less than 2 per cent of the farms accounted for 26 per cent of the farm products sold that year.

It is clear that American agriculture has been subjected to constant and continuing change over the last century. The problem is not merely one of dislocation and disruption induced by war, depression, and war, but it has also been influenced by extensive technological advances and by both the occupation and abandonment of large areas of land. As yet, the vast technological changes are unmatched by a corresponding change in the organizational structure of agriculture, perhaps because the intricate business of producing food and fiber on a large scale requires something more sensitive in the way of organization and management than is required for the handling of the inert materials processed in factory and shop.

Mr. Benedict has given us a clear picture of the current perplexities of agriculture and suggests the limitations of Federal programs already tried. He does not probe very deeply, however, into the values that created the programs or the assumptions on which they rest. Indeed, at one point he indicates that he is concerned primarily with commercial agriculture as such, and that for "these farms, price policy is a central issue" (p. 484 n.). Perhaps this is so, but the President, in his farm message last January, asserted that in America, farming is a way of life. "Throughout our history, the family farm has given strength and vitality to our entire social order. We must keep it healthy and vigorous." Similar sentiments echo in the halls of Congress, in the editorial offices across the land, and at the hustings now as they have for some decades. It would have been helpful if Mr. Benedict, on the basis of his extensive and detailed study, had been willing to deal directly with the ideological values on which such statements rest and thus helped us to a better understanding of the basic issues of the farm problem of the 1950's. Too much that is being said and written

about the farm problem suggests the schemes advanced long ago in an attempt to save the craftsman from the crushing advance of the machine and factory organization. Perhaps the family farm represents a type of organization that is becoming obsolete as the technological and other agricultural advances continue to transform farming. Certainly this problem is one that deserves candid, even-tempered, and sensitive analysis by those who seek to explore solutions of the farm problem today.

VERNON CARSTENSEN, *University of Wisconsin*

BUSINESS AND INDUSTRIAL HISTORY

Standard Oil Company (Indiana): Oil Pioneer of the Middle West. By Paul H. Giddens. New York: Appleton-Century-Crofts, Inc., 1956. Pp. xviii, 741. $7.50.

For a number of years a small body of historians has been acting on the assumption that to get a reasonably comprehensive picture of American economic growth during the past hundred years numerous biographies of businesses were essential prerequisites. A relatively impressive number of such studies has been published over a period of twenty-five years, but few of them have dealt with large-scale enterprise. With this history of the Standard Oil Company (Indiana), Paul Giddens has contributed a study of lasting merit to the growing literature on the history of big business and of the petroleum industry.

The author deserves to be commended on many points. Within the pages of one volume he has covered the history of one of the largest companies in the United States, beginning with birth in 1889 and ending with the year 1951. Commissioned for the task by the company through the medium of Allegheny College, Mr. Giddens has remained impartial and unobtrusively objective throughout the extended essay. On controversial points the reader is generally hard put to discover where the sympathies of the author lie. A substantial body of data from sources outside the company files will permit scholars to check his interpretations if they desire to take advantage of the opportunity. The writing is straightforward, expository narrative, chiefly organized on a chronological basis. The flow of the story is excellent; the reader is carried along easily and rapidly. Only occasionally will he stumble briefly over technical terminology. Achievements of the company are evaluated, sometimes quite fully, and errors in judgment are given counterbalancing space.

Lest this reviewer lose caste in his profession by offering nothing but praise of this book, it should be said at once, rather than at the end of the essay, where undue weight might be attached to the comments, that some criticism can be made of Mr. Giddens' work. For example, the subtitle may be misleading to some extent. Standard Oil Company (Indiana) was not a pioneer in several phases of the petroleum business in the Midwest prior to the dismemberment of the Standard Oil combination. The company entered the ranks of producers only some years after 1911. Refineries had existed in Pittsburgh, Cleveland, Toledo, Lima, and St. Louis long before the one at Whiting was constructed. All the research and first commercial manufacturing of petroleum products from sulphur-bearing Lima-Indiana crude oil took place at the Lima plant of The Solar

Refining Company and the Cleveland plant of The Standard Oil Company (Ohio). Scores of marketing companies antedated those established by such allied Standard Oil firms as The Standard Oil Company (Ohio), Consolidated Tank Line Company, Standard Oil Company (Kentucky), P. C. Hanford Oil Company, and others prior to the 1890's, when Indiana Standard purchased the wholesaling facilities developed by these predecessors in a large block of Midwestern states.

The foregoing statements are not intended to detract from the very real accomplishments of the Indiana Company prior to 1912. The Whiting plant was the first truly large refinery in the Middle West, and it was the site of the first large-scale application of the Frasch process to refining sour crude. Indiana Standard men did extend marketing techniques previously developed by others and did introduce deliveries to farmers, as far as is now recorded, before any other company did so. The Indiana company undoubtedly had the largest and best corps of researchers in the petroleum industry prior to World War I, a circumstance that paid off with the discovery of the first widely adopted method of maximizing the production of gasoline from petroleum.

Some economic historians will certainly wish that Mr. Giddens had relied less on chronological treatment and more on functional and topical analysis. Readers must now go through the entire book if they desire to analyze policies with reference to producing crude oil, pipe lines, refining, labor, relations with government, finances, and other topics. Such analysts might prefer to have more of the thinking done for them; they will not object to the story, but the story alone leaves so much work for them to do after the publication of the book! They want conclusions as to policies and achievement, with statistical tables to serve as measuring sticks.

Leaving aside requests for predigestion, the author has provided literally masses of material for analysts to assemble and assess. Why did Indiana Standard's share of the market for gasoline in its area of operations decline from 83 per cent in 1910 to 22 per cent in 1933? The answer is implicit in many parts of the narrative and in the analysis of a report made by men in the company in 1933. The reasoning which induced executives to go into producing, product pipe lines, improvement in products, and expansion of refining facilities are all presented. Only financial practices are given disappointingly short shrift. Particularly well done are the sections of the book dealing with the proxy fight between the forces of Robert W. Stewart and John D. Rockefeller, Jr., in 1928–1929, the litigation over cracking, and several brushes with the Federal government in connection with price policies and transportation practices.

Above all, Mr. Giddens has given a portrayal of human beings at work, providing goods and services for a large and ever-growing consuming public. Standard Oil Company (Indiana), the reader realizes, has been and is an instrument for a host of employees led by able executives. Collectively they have done an excellent job for themselves, stockholders, and consumers. Just like other human beings, they have made mistakes on occasion. They have accomplished greatly and have gradually learned that their responsibilities must encompass not only relations with stockholders and employees but also suppliers, a widening category of consumers, various governmental agencies, and the general public, to mention a few. For the humanization of the "soulless corporation" alone this

book would have been worth the expenditure of effort and money, and it is much more than that. It is a valuable contribution to the history of business, of business administration, of an important unit in national economic development, and of the Middle West.

RALPH W. HIDY, *New York University*

History of American Merchant Seamen. By Elmo Paul Hohman. Hamden, Conn.: The Shoe String Press, 1956. Pp. viii, 125. $3.50.

This book makes no claim to definitiveness. Its conception lay in the need for more available material for student officers at the merchant marine academies. But the author's hope that it will be enlightening and stimulating to general readers as well as to active personnel in the merchant marine, to staffs of shipping companies, to officials of maritime unions and government agencies, as well as to economists and historians, is not incorrectly founded. The content of the book is good and the material, although previously published elsewhere, will be serviceable for some time to come. Even if a more definitive study were available, the book would still serve as a good introduction to the subject.

We find a very excellent chronological treatment in well conceived topical units. Briefly, the book encompasses the story of labor problems in the industry, how they arose, how they were approached, and the results of various developments; it is divided into two parts, the first carrying down to 1937—when originally written—and the second covering the period from 1937 to 1952.

The author begins with an account of the conditions, developments, and events leading to the enactment of the Seamen's Act in 1916 and the role played by Andrew Furuseth, illustrious president of the Seamen's Union. A very succinct analysis of the ideologies and economic theory of the Act provides interesting reading, as does the appraisal of the effect of the Act. The impact of World War I, the doldrums of the twenties, the eclipse of unionism and its revival in the New Deal period, with a brief account of the strikes and legislation of the mid-thirties, are treated in order. Not least is an account of the internecine warfare among the various rival unions.

In the last section of the book we find an account of the collective bargaining, governmental, and trade-union patterns, the activities of the Maritime Labor Board, and the wartime measures and work of the War Shipping Panel, as well as the wartime efforts to enhance the port welfare of seamen through the United Seamen's Service. This is followed by a discussion of the postwar labor problems beginning with the postwar need for wage increases. Then there is a discussion of the Taft-Hartley Act and the impact upon union hiring halls. Union rivalry and ideological warfare are outlined in some detail. This is followed by a discussion of the problem of unemployment in the industry, the revival of merchant marines in other countries, and the role of our government in dealing with the many problems of the industry.

No one should complain that the two main parts of this book are simple reproductions of earlier publications. One might wonder, however, why the orientation and background chapter is so thin. A more substantive introduction could have been written without much additional effort. Likewise, one might wonder why an additional concluding chapter was not added. To be sure,

the span between the end of 1952 and the beginning of 1956 is not very long, but some observations about current problems and some prognostications about them would have been welcomed by some readers. It might have left a feeling that the work was better rounded and more complete. All of this is minor, however, and should not raise a question about the merits of republication in the form of a small book. This writer thinks the book will serve its purpose well before some energetic researcher gets around to doing the needed, more definitive work on the subject.

VERNON H. JENSEN, *Cornell University*

Small Business in Brass Fabricating: The Smith & Griggs Manufacturing Co. of Waterbury. By Theodore F. Marburg. New York: New York University Press, 1956. Pp. xii, 116. $5.00.

This slender volume records the entire life span of a Connecticut brass manufactory in the period 1865–1936. Written in an objective and straightforward manner, and admirably documented, it does more than describe the history of a relatively small brass fabricating plant. In examining the successive stages in the life of a small business, it also helps to cast light on an important aspect of the growth of the American economy.

Throughout the work attention is directed to those details of business organization, administration, and management, which—in the Gras tradition—have come to be the preoccupation of many American business historians. Thus, if the workers are never present, except as a numeral on a chart or as a cost entry, the managers and foremen are never absent. Command is the central theme. And when the author tells us (p. 11) that "It is not clear *exactly* [my italics] when plant supervision was delegated to a hired employee," he is not making careless use of words. Obviously, such a change in command is an important point in Mr. Marburg's eyes. With similar exactitude he tells us, at the end of each important phase of the firm's life, what the management had achieved in economic and business terms. Yet the author's preoccupation with the statistical and accounting aspects of this work has not resulted in his losing sight of other and in some respects more interesting topics. Some of these are the importance of patents, the emphasis placed on accretion rather than spectacular innovation in determining the speed of economic development, the analysis of the price structure as an explanation of changing marketing conditions, and the observations on investment policy. Perhaps the importance of this work lies in two essential facts. First, it is not only a study of business success but also of business failure. Secondly, in an age when a premium is placed on bigness it will do us no harm to be reminded that all vast enterprises have small origins, and that it is in the history of relatively small undertakings, such as The Smith & Griggs Manufacturing Company, that the general pattern of industrial development during this period might best be discerned.

The only reservation that can be made about this work concerns the narrow field of enquiry in which it has been made. Vital as the study of the physiology of business life may be, it leaves one with an unfortunate impression of human activity devoid of social sympathies and ideas. It also presents a situation where specialists such as the accountant, the statistician, and the economist might seize

the center of the stage and elbow Clio into the wings. Fortunately, Mr. Marburg is too much of a historian to permit this to happen. Indeed, if ever a constructive synthesis of the various views of the businessman in history is formulated with equal ability, in the general sense, as marks the history of this separate firm, in the specialized sense, we shall have little cause to grumble.

W. Woodruff, *University of Illinois*

The Mexican Petroleum Industry, 1938–1950. By J. Richard Powell. (Publication of the Bureau of Business and Economic Research, University of California.) Berkeley and Los Angeles: University of California Press, 1956. Pp. xiv, 269. $4.00.

This is a study of how the Mexican oil industry operated, and with what results, after the properties of foreign oil companies were expropriated and placed under national management in 1938. The author sketches briefly the historical background and the objectives of expropriation, but his concern is principally with the management of the industry after expropriation, the difficulties met, and the extent to which the original objectives were attained.

This study gives every appearance of thoughtful and careful work. The author was clearly limited to some extent by the fact that he had to rely mainly on published materials, some of which are far from objective, but he used the available information with discrimination. In a few places he shows unfamiliarity with certain technical aspects of oil production, and his treatment of the post-expropriation boycott might have been stronger if he had indicated the condition of the world oil industry at the time. Most significant, however, is the author's insight into the complex issues with which he deals and the objectivity which he maintains throughout the study. His chapter on labor-management relations after expropriation is most illuminating, and his analysis of different concepts of "economic imperialism" in relation to the Mexican oil industry has a broad significance.

The author wisely refrained from attempting to evaluate the charges against the oil companies or the justification of expropriation. Such an evaluation, he writes, is a project for future probing. It is to be hoped that he will undertake that probing. That would be a heavy task, for it would require research in the operations of foreign oil companies in Mexico, viewing those operations against the background of conditions under which they worked, from Díaz to Cárdenas. Such a study should not only throw light on expropriation; more importantly, it should contribute toward a better understanding of why the foreign oil companies failed in Mexico and of that currently important issue, economic imperialism.

Henrietta M. Larson, *Harvard University*

The Railroads of the South 1865–1900, A Study in Finance and Control. By John F. Stover. Chapel Hill: The University of North Carolina Press, 1955. Pp. xviii, 310. $5.00.

At the close of the Civil War, Southern railroads were in ruins. Except for Union-sponsored repair and maintenance on a few strategic lines, they were all

but useless to friend and foe alike. Thirty-five years later Southern railroad mileage was nearly four times as great as it had been in 1865; most of the major Southern systems of the present day had taken shape; standard gauge had been achieved throughout the South; and the railroads of that section were fully absorbed into the extensive and still expanding national rail network. With this as its theme, *The Railroads of the South* deals primarily with the patterns and the techniques by which Southern rail rehabilitation was accomplished and by which Northern financial domination over these same Southern railroads was ultimately achieved. The result is a new and welcome chapter in the always fascinating and usually confusing story of railroad finance, management, and control.

Since this is a study in finance and control, the stage is necessarily set with facts and figures, with stocks and bonds, with dividends and the lack of them, with impersonal receiverships and equally impersonal boards of directors. All these categories are at home in a drama of this sort, but are not guaranteed to stimulate the emotions or warm the hearts of its readers. Only occasionally do the individuals involved in all this action come to life. An example is found in the excellent chapter on the southward expansion of the Illinois Central in the 1870's and eighties. More often the people appear to be the helpless victims of the dollar sign, the common stock certificate, and the operating ratio.

The "South," for the purposes of this book, is defined to include the eight former Confederate states east of the Mississippi River along with Louisiana and Kentucky. Within this area the author employs a fairly straightforward chronological approach to describe the methods and extent of Northern financial penetration and corporate control. It is this chronological pattern, interspersed with appropriate and valuable chapters on the development of the major rail systems of the present-day South, which provides the book with its basic chapter arrangement.

Four logical time divisions stand out. The first, 1865–1873, was a time of recovery and rehabilitation with the scheming hand of the carpetbagger much in evidence. Next, the optimistic plans of native Southerners and the grandiose ideas of the carpetbaggers alike fell victim to the Panic of 1873. This event was a terrific blow to American railroads generally, and to many a road in the South it was a sheer catastrophe. Fully half of the Southern lines then in existence experienced the sorry sequence of default, receivership, and either foreclosure or reorganization in the course of the decade. Subsequent recovery found the railroads of the South sharing generously in the widespread prosperity of the 1880's. The characteristics of this decade were rapid construction and extensive consolidation and merger; railroad mileage in the South very nearly doubled in the ten years before 1890. Even though prosperity gave way to depression during the last decade of the century, the strong movement toward an ever-expanding Northern influence and control continued unabated. The turn of the century found both Northern money and management triumphant in Southern rail circles.

Altogether, this book is a solid, well-disciplined monograph. It contains much fine writing and provides a number of interesting insights into the economic history of the post-Civil War years. For example, though there is no specific mention of the politico-economic arrangement that followed the disputed election

of 1876, the evidence here presented provides strong support for that portion of the Compromise of 1877 which promised Northern capital and entrepreneurial "know-how" in return for Southern acquiescence in the election of Rutherford B. Hayes as President of the United States.

The only real disappointment which this reviewer experienced in the course of his reading, except for some curious inconsistencies in the matter of footnoting, has to do with the maps. They appear to be accurate enough and are fairly well placed, but their excessively small scale and limited conception make them seem cramped and difficult of interpretation. This does most certainly detract from their usefulness. Perhaps it is too much to expect to find evidence of new construction, differences in gauges, and permanent patterns of consolidation all delineated on a single map, but such an achievement would be most welcome.

ROBERT M. SUTTON, *University of Illinois*

The Power to Go: The Story of the Automotive Industry. By Merrill Denison. Garden City, N.Y.: Doubleday and Company, Inc. Pp. 324. $5.00.

There is no question that Charles and Frank Duryea, conceded to be the fathers of the American automobile (others produced "horseless carriages" before them, but did not launch an industry), believed in the importance of their work, as did other pioneers like Olds, Haynes, and Ford. However, none of these men foresaw the sweeping transformation that the motorcar would make in American society; nor have the full implications of the changes it brought been perceived until recent years. Indeed, it may be said that no serious, comprehensive account has been written before Merrill Denison's that adequately relates the development of the automobile to our national life.

It is the great merit of this book that Mr. Denison never ignores the forest while taking account of the trees—many of these most spectacular in appearance, and not a few of them lordly. From the background of steam and gunpowder engines into the vital prefatory work of Lenoir, Otto, Marcus, Daimler, and Benz, through the shrewd 1879 patent of George Selden on into the fecund 1890's to the appearance of the first "popular" car (Oldsmobile) and its later displacement by the Ford, to the creation of the quality-built Cadillac, the multifaceted General Motors, and mass production at Highland Park, Mr. Denison never forgets the increasing effect of the automobile on American transportation, industry, domestic architecture, and community growth. Steadily, vividly, and dramatically he reveals its astounding impact upon all these areas. He is also keenly aware of the effect of two world wars on the machine, and the sharp countereffect of the machine on war in general. (His is the story of the truck, the tractor, and the bus as well as of the passenger car.) His characterization of recent developments with respect to homes and work deserves quotation: "This new superurban civilization," he says of road-and-residential areas, "is a social and economic phenomenon, a creation of the automobile, by the automobile, and for the automobile. It is created, it lives, and it expands because of the motor car." And he adds with more assurance than some observers might feel: "It is a life more spacious, more diversified, more healthful, more richly

rewarding than any that mankind has ever known." (Not that Mr. Denison is unaware of modern traffic problems. He quotes George Romney: "As a nation, we have lifted ourselves out of the mud—and into a muddle!")

Any account of automotive developments in the United States has a fund of fabulous characters, projects, and episodes on which to draw. Mr. Denison does not neglect these. The reader will encounter Olds, Pennington, Ralph Flanders, the Lelands, Henry Ford, Knudsen, Chrysler, Sloan, and a dozen other memorable men. He will read in brief such sagas as Durant's creation of General Motors, Kettering's invention of the electric lighting and self-starting systems, the moving assembly line at Highland Park, the Chevrolet-Model T battle, the birth of the Chrysler cars, and the achievements of car makers in World War I and II. These are told in the crisp, pungent English which is characteristic of Denison, and which freshens the automobile story as a salt wind from the sea breaks the heat of an oppressive day. At the end Mr. Denison emphasizes the unfinished nature of his account: "The story of the automobile has not outgrown its romance; it promises a tomorrow as fabulous as its past."

In a volume that covers a province so large, there are bound to be errors, for new information is yearly becoming available to correct certain versions of what occurred, or to supply wholly new ones. For example, we are told that Charles B. King's first car (1896) was powered by a Sinz (instead of the engine that King himself designed after acquiring and rejecting the other), that James Couzens sold the shares to provide the working capital ($28,000) for the unborn Ford Motor Company (he tried, but so did others, and Malcomson and Ford were more successful), and that Vincent and Hall designed the Liberty engine in a few days in a Washington hotel, while actually the basic design was Vincent's, and Hall and he merely modified an already existing mechanism. But such items are about as important as the careless proofreading which occasionally breaks the tension of the reader's interest.

The book contains a brief but useful bibliography, a welcome glossary of automotive terms, and fifteen valuable appendices giving statistics on such matters as United States motor-vehicle registration, sales, world vehicle production, consumer installment credit, highways expenditures, and industry employment and wages.

FRANK ERNEST HILL, *New York City*

Great Enterprise: Growth and Behavior of the Big Corporation. By Herrymon Maurer. New York: The Macmillan Company, 1955. Pp. x, 303. $5.00.

Great Enterprise is another attempt to take apart the modern large corporation, or rather a number of large corporations, fifty in all, to determine their *modus operandi*. The study is limited to American corporations and is historical. Concepts of business enterprise and the attitudes of business management at various periods of American history from the days of the early Puritans, in the nineteenth century, and through the depression of the 1930's are briefly presented. This historical review is partly meant to show the independence of the American development from the influence of the theories of Adam Smith, David Ricardo, and other Classicists across the water. Mr. Maurer finds similarity in the attitudes and behavior of many American industrialists to the speculations and conclusions

of Adam Smith, but he observes that those of David Ricardo hold sway only in the last quarter of the nineteenth century and the first quarter of the twentieth. However, where such similarity does exist, it is apparent to the author that contemporary conditions rather than any study or knowledge of the writings of Smith, Ricardo, or Marx on the part of big-business leaders are responsible.

The complete freedom from public controls and from income taxes restricting individual profits which existed throughout the nineteenth century, as well as the dictatorial control exercised by the heads of business during that period, are illustrated by brief events in which such famous names as Daniel Drew, Jay Gould, and Cornelius Vanderbilt played a part. A more lengthy treatment is afforded those who, like Andrew Carnegie, appeared to be real business managers rather than merely reckless financial manipulators. Even during the period of unrestrained financial spoliation the author finds a gradual change of attitude developing. He cites with favor the devotion to day-to-day business operations rather than stock market speculation by such figures as Roebling, Crane, and Charles Francis Adams, Jr. Later, in a similar vein he praises President William White of the New York Central.

Mr. Maurer takes pains to dismiss quickly those whose stake in business is that of a speculator looking for stock market profits, or one, such as Robert Young, whom he considers to represent speculative interests.

Overall, the author's examination of modern corporation practices is an attempt to emphasize that present-day management is divorced from thought of individual profit or aggrandizement, but represents a sort of trusteeship in which stockholders, employees, and customers are the beneficiaries. By examples he shows how this trust is accomplished, not by slavish following of a universal system, but by methods adapted to the business unit at hand. Individual business leaders are pictured as self-effacing and are lauded for their skill in development of successful methods of management.

Long-range planning to insure successful future operations at the expense of present profits is exemplified by such corporations as American Telephone and Telegraph and Standard Oil of New Jersey, the latter a favorite example of the author. In his treatment of the relationship of the board of directors and the managing officers, there is much that is new to past and contemporary writing.

In the presence of many essays severely critical of American corporation practices, the author finds much more to praise than condemn. *Great Enterprise* is an eloquent defense of present large corporation management, backed up by the cited examples.

The absence of footnotes and references is explained partly by the fact that the material is based upon the many corporation studies made throughout the years by *Fortune* magazine and, in the case of the fifty large corporations selected, upon personal interviews with the managing officers. That this will not be very satisfactory to those accustomed to the carefully annotated approach used in the presentation of historical research goes without saying. Nevertheless, the business and economic historian will find the book provocative and a worth-while contribution. It is not a sugared pill to be swallowed quickly but rather a food for thought and a stimulant for further research.

ANNE E. HULSE, *Hunter College*

COMMERCE AND TRADE

American Imports. By Don D. Humphrey. (A study jointly sponsored by the Twentieth Century Fund and the National Planning Association, with a policy statement by the Association's Committee on International Policy.) New York: Twentieth Century Fund, 1955. Pp. xviii, 546. $6.00.

In this monumental study, American imports are subjected to a detailed scrutiny from every conceivable angle. They are a problem, because there has been a persistent export surplus since the war. (Yet historically speaking, the United States had an import surplus during much of the nineteenth century.) Imports have grown, but much less than our economy, and this seems to be true even if imports are compared only with industrial production. Furthermore, imports tend to fluctuate more than industrial production during the business cycle. There has been a change in the composition of imports away from manufactured products to raw material, minerals; and there is a great concentration of imports in a few commodities, such as coffee, newsprint, sugar, wool, and petroleum. In fact twelve major groups of imports accounted for 61 per cent of all imports by value in 1949.

In examining tariffs, the author finds that tariff levels have not been decisive in limiting imports. He therefore investigates in detail the obstacles to imports. These come basically from three sources: our agricultural policy, our traditional protection which has sensitized us to all increases of imports which might affect any industry or part thereof, no matter how unimportant in the economy as a whole; and the fact that frequently foreign knowledge of the nature of the American market is lacking.

Don Humphrey turns next to the question of what imports might be increased. Aside from expenditures by Americans traveling abroad, there is obviously "hope" for petroleum or pulp. But on the whole the author is not optimistic about increasing imports because continuing technical changes allow more sparing use of imported materials. While imports, in the author's opinion, would not increase much, even if tariffs and other protective devices were eliminated, nevertheless some industries would be hurt. "The evidence suggests that the import of additional imports will be concentrated chiefly on those sectors of the home economy which already suffer from internal dislocation" (p. 361). This leads Humphrey to suggest some remedy for losses resulting from changes in governmental policy.

The strength of this book is its enormous detail. Readers will find a chapter on hand-blown glass and one on the watch "case." The last mentioned chapter is rather devastating to the claims that cheap Swiss imports have caused the troubles. Rather it is true to say that the Swiss watch imports have created their own markets and also expanded that for the domestic watch industry. The documentation is excellent, and there is meat on the dry skeleton of theory. Furthermore, the theoretical discussions are more than adequate for the non-technical reader.

The book has also two serious weaknesses, neither of which is, strictly speaking, the author's fault. The first is inherent in the topic. Although the author makes every effort to see imports in a larger context, the overpowering detail

with which imports are treated pushes the context into the background. Thus a chapter on the American Tariff League, the chief protectionist lobby (whose arguments incidentally have become much more sophisticated in the course of the years) bends over backward to be fair, but omits adequate discussion of some problems. For example, the question as to whether Americans are correct in taking into account the fact that refusing Japanese imports might drive Japan into the Communist orbit is not answered by merely pointing out that the Reciprocal Trade Agreement Act says nothing on the subject.

Furthermore, by stressing imports so much, the author rather underplays the development of compensating exports. We are shedding quite proper tears about hand-blown glass blowers who, because of competition from abroad and at home, lose the employment of their skills and are forced to move, even though they own houses and are rooted in their community. But about the other side we hear only that unskilled workers are more mobile—as if that meant more than that they are more easily pushed around. We also learn that the export industries, and, in general, the big industries whose products are also imported, can adjust more easily because they produce many products and can shift labor and make other adjustments within the industry or firms.

The detail lavished on the small industries hurts, and the lack of detail about other industries creates unwittingly a quite wrong impression. In the first place, chemicals, though one of the most rapidly growing industries, are in the protectionist camp—quite unnecessarily, to be sure. Secondly, Westinghouse has successfully prevented bids for turbines to be awarded abroad, and surely Westinghouse is big enough and produces enough products to make the adjustments. Thirdly, in the case of automobiles, for example, there is a very great deal of subcontracting in small specialized plants which would frequently bear the brunt of a reduction in car demand while General Motors could indeed successfully shift to something else. In short, the distinction between the poor import-competing industries and the rich others is somewhat overdone.

Nevertheless, it should be made clear that in the reviewer's opinion compensation should be paid to an industry hurt by imports whenever damage occurs *because* of a change in government policy.

The second serious weakness of the book is that it was evidently finished by 1950 or 1951, and that any later information was added without changing much in the structure of the book. The fault is very likely the publishers', and not the author's. Nevertheless, that delay has done more than make the tables painfully out of date.

First, by 1955 the whole import problem looks slightly different since for most countries the dollar problem is reasonably well taken care of. We have even reached *de facto* sterling convertibility, and the world has accumulated a few billions of gold and dollar reserves. Secondly, quite a few imports have risen which are hardly mentioned by the author, and others have increased quite a bit more. The following table gives the figures for the major import categories for 1929, 1949, and 1954. The starred figures are the ones given by the author. In interpreting the figures, it should be kept in mind that all are in current dollars. As a rule of thumb, any increase of less than 100 per cent in value probably implies a decrease in quantity, since prices have about doubled compared to prewar ones.

VALUE OF IMPORTS BY MAJOR CATEGORIES, 1929, 1949, AND 1954
(in billions of dollars)

Group Number and Subgroup			*1929*	*1949*	*1954*	*Percentage Change 1954/29*
00		Animals and products, edible	.142	.269	.435	306†
0		Animals and products, inedible	.397	.278	.246	62
1		Vegetable food products	.819	1.805	2.879	352
	1.20	Cocoa, coffee, and tea,	.380	.970	1.833	482†
		of which coffee alone	.302*	.796*	1.486	492
2		Vegetable products, inedible	.247	.606	.628	254†
3		Textile fibers and manuf.	1.002	.689	.795	79
	3.40	Wool, unmanufactured	.087*	.222*	.222	255†
	3.41	Wool, semimanufactured	.014	.028	.038	271†
4		Wood and paper	.377	.842	1.327	352
	4.48	Sawmill products	.054	.113	.252	466†
	4.49	Wood manufactures	.011	.034	.102	927†
	4.50, 4.51	Paper, pulp, etc.	.262*	.635*	.926	367†
5		Nonmetallic minerals	.306	.694	1.232	403†
	5.54	Petroleum and products	.144*	.478*	.828	575
6		Metals and manufactures	.396	.963	1.719	434†
	6.64-6.72	Nonferrous minerals	.331*	.836*	1.208	365
7		Machinery and vehicles	.042*	.135*	.359	855†
8		Chemicals and related products	.144	.107	.249	173
9		Miscellaneous	.220	.209	.363	165
	9.91	Watches and clocks	.017*	.051*	.067	394†
Total imports			4.399*	6.598*	10.232	233
Total growth imports			1.938	4.720	7.813	403

* The starred figures are the ones given by the author.

Sources: Humphrey, p. 36, *Stat. Abstract of the U.S.*, 1932 ed., pp. 516 ff.; 1950 ed., pp. 849 f. U.S. Department of Commerce, Census, *Report* No. FT 120, United States Imports of Merchandise for Consumption. Country of Origin by Subgroup. Calendar Year 1954.

If "growth imports" are defined by a rate of increase between 1929 and 1954, of 150 per cent or more (which percentage seems to have been Humphrey's criterion), then the imports marked with a dagger ought to be added. For 1929, growth imports (thus defined) were 44.2 per cent of all imports (compared to 27 per cent given by Humphrey). By 1954 they were 76.4 per cent. If only Humphrey's categories are used, the percentages are 26.7 per cent for 1929 and 40 per cent for 1954 respectively. Humphrey's own percentage of growth imports to all imports for 1949 is 48 per cent.

It is therefore no longer correct to say of the United States that "the citizens and industries bought only eight major imports in increasing amounts" (p. 36), the eighth being a tiny amount of industrial diamonds. Without minimizing the importance which the American reluctance to imports has played in the past, many of the findings of the author, insofar as they are based on the period before 1950, are in part also to be explained by the disturbed supply conditions of Europe which improved rapidly *after* 1949/50.

Little of these specific criticisms will affect the general conclusions, that tariff reductions will not induce a flood of imports into the United States—though the corollary that therefore any damage to domestic industries will be correspondingly

small is not stressed—and that commercial policy must be seen in the context of foreign policy as well as general economic policy. It is a pity, however, that the book did not appear either earlier or have a more thorough revision after it was originally finished.

WOLFGANG F. STOLPER, *University of Michigan*

Early Colonial Trade and Navigation Between Mexico and Peru. By Woodrow Borah. (Publications in Ibero-Americana, No. 38.) Berkeley and Los Angeles: University of California Press, 1954. Pp. 170. $2.50.

This study presents new information on the nature and evolution of Pacific commerce between sixteenth-century Mexico and Peru. It is a brief book in which too many facts are concentrated to make for easy reading, but the facts themselves are significant. In all, it is the first satisfactory account of the subject with which it deals.

Hernán Cortés sponsored the first oceanic contact in Spanish times by sending two vessels to bolster Francisco Pizarro and probably to explore in 1536. In the following decade or so occasional ships made the highly difficult voyage to Peru carrying arms, plants, and horses. After a useful description of shipbuilding, ports, roads, and sea routes, Mr. Borah gives a detailed account of the trading ventures of the Cortés estate during the 1550's, when several shiploads of its products went from Huatulco to Callao. If the results were disappointing to the managers of the estate, the details are interesting to historians. After this phase a few ships, probably never more than ten, operated by various individuals made more or less frequent voyages between the Pacific ports of the two viceroyalties, usually with manufactures and luxury articles for Peru and specie and mercury for Mexico. Particularly colorful are the insights provided concerning the nature of the passenger traffic, mostly persons on official or church business, merchants, and those who were joining or fleeing from wives, relatives, and business associates. The regulation and taxation of the trade by the crown developed pragmatically but always in the direction of tightening royal control and increasing revenue. Widespread evasion of the law with some official connivance, even on the viceregal level, accompanied the process.

By 1585 the reshipment of Chinese goods from the Philippines at Acapulco, which had supplanted Huatulco as the leading Mexican port on the Pacific, grew into a highly lucrative traffic, and many more ships were involved. Luxury articles, iron and copper, and cheap textiles were so preferred in Peru that Spanish sellers could not compete. The crown also became uneasy that Peru would develop an independence of the mother country in merchandise and perhaps in other matters as well. Thus, the very success of the Manila-Acapulco-Callao trade proved its undoing. By the last decade of the century the government forbade the reshipment of Far Eastern wares from Mexico to Peru, and in 1631 it finally bowed to pressure from Spanish merchants and ordered the total cessation of trade between the two wealthy viceroyalties. Of course, considerable illicit commerce continued.

While little material could be obtained from Peru and information from other sources is uneven, this study inspires confidence in its soundness and thoroughness. It is a pity that no index and only one map could be included and that

footnotes had to be grouped together in the back of the volume. The general excellence of the work makes it a welcome contribution and stimulates the hope that further studies of this type will be forthcoming.

JOHN E. FAGG, *New York University*

Medieval Trade in the Mediterranean World: Illustrative Documents. Translated with introductions and notes by Robert S. Lopez and Irving W. Raymond. (Records of Civilization, Sources and Studies, Austin P. Evans, editor, Vol. LII.) New York: Columbia University Press, 1955. Pp. xi, 458. $6.75.

Compared to a source book in constitutional history, church history, or medieval life in general, a source book for the history of medieval commerce is a pioneering effort. In giving us a work of this kind, Robert Lopez and Irving Raymond have performed a very valuable service. Their principle of selection could not be that used in a collection of sources for constitutional or intellectual history; they could not pick out documents that were in themselves landmarks or turning points, documents already made famous because men had turned to them again and again as authoritative statements of law or doctrine. An illusion of setting forth basic documents might have been created by printing more charters, statutes, and regulations, but since it would have been only an illusion, the editors have avoided material of this kind almost entirely. Convinced that such formal regulations reflect reality far less fully and truly than do the papers created by merchants in the course of their business, Lopez and Raymond have presented a rich and varied assortment of these working papers—contracts, bills, accounts, letters, and instructions—supplemented by records of lawsuits, extracts from the manuals of various kinds used by merchants, and some travelers' descriptions of trade centers. They have had to be merely illustrative, as in source books of social history, but they have ranged far and wide with awe-inspiring erudition in search of interesting examples of commercial practice and adventure and have made an excellent selection. The distribution among different kinds of documents is well balanced, as is also the selection from various parts of the Mediterranean world. Italian documents naturally are most numerous, but there is much from other cities in Latin Christendom, and much also from Byzantine and Arabic sources. The editors have overcome a mass of difficulties in translating the documents and in supplying them with explanatory footnotes; they have done so with great skill. They have provided an admirable amount of explanation and yet have succeeded, as well as anyone could with translations, in letting the documents speak for themselves.

The arrangement of the documents into five main parts and twenty-five chapters, each of which is subdivided into sections, must have been one of the most irksome of the editors' tasks, for many of the documents illustrate more than one of the topics selected as chapter heads. Documents concerning the *commenda,* for example, will be found in other chapters as well as in that entitled "The *Commenda* Contract." On the other hand, the chapter and section headings set the themes for editorial introductions, many of which are golden nuggets of clarification and bibliographical guidance, and the index is very useful.

In short, Lopez and Raymond and Columbia's "Records of Civilization" are to be thanked for an extremely valuable volume. It may disappoint readers who wish to lean back and digest well-cooked conclusions. This is raw material demonstrating that history is a series of problems to be worked at. It is the ideal next assignment for students who have read general descriptions, such as that by Lopez himself in the second volume of the *Cambridge Economic History,* and wish some firsthand knowledge of the evidence. Scholars who have already explored rather thoroughly some aspect of medieval Mediterranean trade will find valuable starting points and traveling equipment for new expeditions on the varied, rocky, and colorful terrain into which this volume invites.

FREDERIC C. LANE, *The Johns Hopkins University*

The British Co-operative Movement. By Jack Bailey. (Hutchinson's University Library: Politics.) London: Hutchinson and Company, 1955; New York: Longmans, Green and Company. Pp. 180. Text edition, $1.80; trade edition, $2.40.

That the "co-ops" are a big movement in Britain, everyone knows; that there are wholesale societies is common knowledge to anyone who can read advertisements in the underground. But the Co-operative Union, the Co-operative Party (that uneasy ally of the Labor Party), the Women's Co-operative Guild, the British Federation of Young Co-operators, and co-operative education are either mysterious or unknown to outsiders. Mr. Bailey has written a short guide, historical and organizational, to the various aspects of British Co-operation.

Co-operation is a Movement, complete with saints, a mythology, a spirit, and a mission. If the trade-unions and the Labor Party do not really understand Co-operation, even less can it "be accurately assessed by mere economists and statisticians" (p. 169). The outsider may appreciate the material assistance that the Co-operative Union provides for its member societies, but he will surely fail to understand the "spiritual dividends," which Mr. Bailey insists are just as important. Yet it is this spirit that is the cement of the movement. Co-operation is "the material expression of a social faith" (p. 170), and a lively faith will keep co-operators away from the threatening inroads of the great multiple chains. The present in this book has a nineteenth-century air about it, and the past has not changed at all. If co-operative education maintains the passionate and old-fashioned history, untouched by revisionism, that is found in the opening sketch, perhaps the essential faith can be kept alive a while longer.

Mr. Bailey is National Secretary of the Co-operative Party. He knows what he is about, so his sketch will be helpful to those in quest of information, and he has commented on some of the problems which the movement faces in a period of transition. But the book is not a penetrating analysis of either movement or problems. Mr. Bailey is too close, too involved in the *mystique,* too committed. As someone once remarked, fortune hunters would be unwise to rely solely on the "inside information" found in a lecture on the pools by Mr. Littlewood.

R. K. WEBB, *Columbia University*

Naissance et croissance d'un port: Sète de 1666 à 1880. By Louis Dermigny. (Actes de l'Institut d'Etudes économiques, maritimes et commerciales de la Ville de Sète, Cahier V.) Montpellier: Causse, Graille, Castelnau, 1955. Pp. 136. 900 francs.

It is unfortunate that the Institut d'Etudes économiques of Sète has not seen fit to give this volume wider circulation (it was published in a limited edition of nine hundred copies for subscribers only). For one thing, it is the only modern economic history we have of France's second Mediterranean port, a port whose growth in the nineteenth century, like that of Marseilles, reflected the renewed importance of this great sea in the expansion of the nation's trade. For another, the book is the work of a painstaking and talented historian (cf. his "Circuits de l'argent et milieux d'affaires au XVIII[e] siècle," *Revue historique,* CCXII [1954], 234–78; and "La France à la fin de l'Ancien Régime: une carte monétaire," *Annales,* X [1955], 480–93) who knows his subject at first hand and offers the reader a wealth of information derived from private and public archives. The major theme of the book is the movement of the port: the volume, character, and direction of traffic. Less is said of the factors shaping the prosperity of Sète and the historical conflicts over critical issues like communication with the interior; the great railroad controversies and the struggle between Pereire and Talabot receive only a page, perhaps because the subject has already been treated by Blanchard (*Essais historiques sur les premiers chemins de fer du Midi languedocien et de la vallée du Rhône* [Montpellier, 1935]) and Girard ("L'affaire du chemin Cette-Marseille, 1861–1863" [unpublished dissertation, University of Paris, 1951]). Indeed, one senses throughout the book—more from the footnotes than the text—that there is a mass of material on the economic history of Sète that M. Dermigny has not seen fit to develop in this volume. In particular, almost nothing is said of the Sétois: the native businessmen, the men who came in from other parts of France, the merchants who immigrated from abroad. Perhaps we shall learn more about these from the author's projected study of the economy of modern Languedoc.

David S. Landes, *Columbia University*

The Muscovy Merchants of 1555. By T. S. Willan. Manchester: Manchester University Press, 1953. Pp. viii, 141. $3.25.

The nature of this study leaves little room for criticism within the scope set by the author. Mr. Willan has done a painstaking piece of research into the charter membership of the Muscovy Company. The personal biographies of 201 charter members would probably be of interest to a relatively narrow circle of economic historians, especially in the United States. The Muscovy Company of 1555 itself, however, as the first of the joint-stock companies, is of special interest to economic historians.

If Mr. Willan's work may be criticized, it is for the brevity of Chapter 1, entitled "The Setting." (There is no preface.) Little space is devoted therein to the company itself, or to the unusual circumstances that led to its founding. Richard Chancellor, commander of one of three vessels searching for a northeast

passage to India and China in 1553, entered the White Sea after being turned back by ice. He made his way up the Dvina river to Moscow, where he received a cordial reception and exclusive trade privileges from Ivan IV. Both the Hanse and Novgorod were in disfavor with Ivan at the time; otherwise the Muscovy Company might not have become a reality.

There is also little reference to the Baltic, where the Eastland Company was also given privileges by Ivan. Except for the town of Narva between 1558 and 1581, Russia had no outlet on the Baltic during the sixteenth century. The Eastland Company, however, was not formally chartered until 1579. With the Baltic virtually controlled by a powerful Sweden and with Dutch shipping becoming predominant there, the White Sea seemed a logical choice to the Merchant Adventurers.

A brief sketch of the nature and length of the trading monopoly granted to the Russia company would also have been helpful. The company did not enjoy the White Sea monopoly for long. There were Dutch merchant ships at the Petchenga Monastery between 1562 and 1564. Dutch ships appear to have been at the mouth of the Dvina by 1578, and with the death of Ivan in 1584 the Muscovy Company lost its "Lord Protector" in Russia. In 1630 there were one hundred Dutch ships and "only a few" English ships in the White Sea (Kulischer, *Russische Wirtschaftsgeschichte,* pp. 425–26).

Any study of the Muscovy Company would seem somewhat incomplete without some reference to the commodities of the Russia trade. There was probably little difference in this respect between the Baltic and White Sea trades. The records of the Sound dues, edited by Nina Ellinger Bang and Knud Korst, provide a fairly complete coverage of commodities in the Baltic trade, and G. Fletcher, Richard Hakluyt, and Anthony Jenkinson have fairly complete lists of the commodities of the White Sea trade.

While of little interest to the general reader in economic history, *The Muscovy Merchants of 1555* is nevertheless, within the limits set by the author, a creditable addition to our knowledge of the type of London merchant engaged in overseas trade during the second half of the sixteenth century.

ANDREW P. LASSEN, *San Jose State College*

ECONOMIC GROWTH

Economic Growth: Brazil, India, Japan. Edited by Simon Kuznets, Wilbert E. Moore, and Joseph J. Spengler. Durham, N.C.: Duke University Press, 1955. Pp. xiv, 613. $12.50.

The papers assembled in this volume were originally submitted to a conference held under the auspices of the Social Science Research Council in April 1952. "Uneven" is the word that invariably recurs in reviews of books of this type. The word is not out of place in this case either. Those who are familiar with the work previously published by such authorities as Kingsley Davis, Lockwood, Reubens, Spiegel, or Wythe will not find much that is new in their present contributions. Aside from conscientious reviewers, not many are likely to read the book from cover to cover. Yet anyone prosperous enough to

purchase a copy can derive ample returns from the investment. The three countries chosen are in some ways very suitable for a program of detailed case studies, and their divergent experience yields much that is of general interest to the student of economic development. The reader will benefit even from the unresolved conflicts between the views of different contributors; he is at all events less likely, in a volume of this sort, to be swayed by the predilections of any single writer. To make such varied material conveniently accessible is a valuable service performed by this type of publication.

The eighteen chapters of the book, written by seventeen authors, are grouped into three parts dealing respectively with output trends, population problems, and the role of the state. This seems an excellent arrangement, but it has not prevented some duplication as well as a number of discrepancies. Cross references are almost entirely lacking. It might have been useful to give some footnotes pointing out, for instance, that the shift of sugar growing from Brazil to the West Indies is explained by Preston James (p. 85) on quite other grounds than those mentioned by George Wythe (pp. 29 and 33); that William Lockwood's discussion of output growth in Japan is carried somewhat further in the contribution by Edwin Reubens (p. 184); or that Kingsley Davis' criticism of India's "welfare state" policies (p. 307) is in substance answered by D. R. Gadgil (p. 459), who refers to the lack of social services as a serious obstacle to the formation of an industrial labor force in India. When one contributor devotes a whole section to a description of rural migration in Brazil (pp. 257–62) while another, without taking any notice of this paper, dismisses such migration as "not well documented" (p. 395), one may well ask, echoing *The New Yorker:* which chapter of *Economic Growth* do you read?

Everyone will have his own preferences, but to this reviewer the most rewarding and interesting pieces were those by Preston James, Kingsley Davis and Marion Levy—all outside the strictly economic field. Preston James, the geographer, gives a profoundly gloomy but fascinating account of the exploitative methods of agriculture long prevalent in Brazil. But is *Raubwirtschaft,* with all its devastating effects, peculiar to Brazil? One has heard of similar things happening nearer home. Besides, this report leaves one rather unsatisfied since it does not even try to suggest any economic or social explanation of what it so well describes.

Kingsley Davis, the demographer, presents a lively essay based on a recent visit to India, which in some respects supplements his book, *The Population of India and Pakistan.* He is moderately optimistic about the possibilities of social change, about the prospects of planned fertility control, and about the influence of Hinduism on economic development. He also has some wise remarks on the effects of British rule viewed in historical perspective.

Marion Levy, the sociologist, contrasts the traditional social structure of China and Japan. China is characterized as a relatively open society with a good deal of vertical mobility, while traditional Japan is regarded as conforming much more closely to conventional notions of feudalism. In both countries commercial activity was held in low esteem. While in China, however, merchants were able to infiltrate into "superior" social groups, in Japan they were trapped by the rigid feudal structure. Escape from the merchant class was virtually

impossible; and thus, it is argued, Japanese society preserved a task force of "economic men" ready and eager to spring into action when the drive for industrialization began. The element of paradox in Marion Levy's theory does not detract from its interest and value, even though it cannot be taken as a complete explanation of the widely varying degrees of success which the two countries attained in the early phases of their economic growth.

Two long chapters by Lockwood, adapted from his recent book, *The Economic Development of Japan,* constitute together about one fifth of the present volume. The main conclusion of his work is that in Japan's industrial advance "the real drive and momentum lay in large measure outside the realm of national political ambition and state activity" (p. 587). This is at variance with Levy's analysis of the political motivations underlying Japan's industrial endeavors (pp. 526–28). Moreover, Lockwood himself has occasion to note "Japan's authoritarian background" and "the Japanese capacity for consensus and voluntary cooperation" (pp. 589 and 597). It is clear that in comparing the role of the state in different countries, much depends on what is meant by the state. Of greater interest to this reviewer is Lockwood's stress on the domestic market as the chief outlet for Japan's growing industrial output. This supplies a much-needed corrective to the usual emphasis on foreign trade. While the importance of the export market for raw silk could hardly be overrated, there is no doubt that in the growth of manufacturing industries, such as cotton textiles, the home market was predominant from the start.

RAGNAR NURKSE, *Columbia University*

Aspects of Economic Development in South Asia. By Robert I. Crane. With a Supplement on "Development Problems in Ceylon" by Burton Stein. (Publication of International Secretariat, Institute of Pacific Relations.) New York, 1954. Pp. 138. $2.00.

This short study is an exploration into the nature of economic growth by a historian who is better equipped to analyze the existing socioeconomic structure in this area than the interrelationships attending planned economic development. It has three rather disparate main parts.

The book opens with a general sociological discussion of how to define, measure, and assess economic development or the lack of it, and of the cultural bias implicit in such an evaluation. This section is followed by a brief description of development plans in India, Pakistan, Ceylon, and Burma. Though all four countries fall into the category of underdeveloped areas as described in Part I, their problems differ markedly because of differences in size, dependence on foreign trade, human and material resources, and extent and character of current industrialization. There also appear to be differences, at least from this account, in the availability of data and in the caliber of planning. In consequence, the plans do not lend themselves readily to comparative analysis, and this descriptive section is inevitably more of a seriatim account of four separate development situations than an integrated study. Ceylon gets special treatment in an appendix by Burton Stein. This nation, paradoxically enough, seems to have the highest living standards and the poorest development prospects—though these latter are

difficult to gauge since the most important ingredient of rapid development is the will to develop. A generally felt sense of urgency might come at any time and actually stem from adversity.

In the third part of the book, Mr. Crane goes on to a critical estimate of the plans and his own prescription for balanced growth consonant with the free society that this area has opted for. He recommends extensive state aid and direction for agriculture and expansion of agricultural co-operatives. For industry he favors private enterprise. Where this is lacking, he urges that government initially build the plants and then sell them to private firms, as was done in nineteenth-century Japan. The state should set the stage for the emergence of a private-enterprise economy by creating a psychological climate and material conditions favorable to a mature capitalism. To this end the state should establish public utilities—transport, power, and communications—provide public education and training, and grant financial aid and tax incentives for productive private investment. Mr. Crane devotes considerable space to India, where planning itself is more developed. He feels that India's first five-year plan was overambitious because it proposed to increase the production of both food and commercial crops and because it relied on deficit finance to fill the gap between normal resources and the requirements of the plan. And he fears that certain government measures, such as the Industry Development and Regulation Act of 1951, will inhibit instead of encourage private enterprise.

This is a familiar point of view and echoes the pessimism of some of the Indian discussion of planning in 1951 and 1952. But it is strangely out of date today. Helped by favorable monsoons, Indian production targets have been easily overfulfilled, and the plan is now usually criticized as too modest. The preliminary draft of the second five-year plan proposes to force the pace by setting up more ambitious investment targets, utilizing deficit finance if necessary. The level of planning discussion itself has risen since 1952: it is less platitudinous and more incisive as to the virtues, limitations, costs, and institutional implications of alternative paths of development. There is more emphasis on industry, particularly heavy industry like steel, whose new units will be run by the government. And concomitant with the reaffirmation of the socialistic pattern has been an increase of private industrial investment, both Indian and foreign. Apparently investors are less deterred by the controls put on private industry than they are encouraged by signs that the Indian economy is becoming a going concern. Indians are trying to create a new balance between private enterprise and public responsibility, to steer clear of the old stereotypes of orthodox capitalism and communism. Perhaps they will confound skeptics like Mr. Crane and achieve economic expansion by forging new relationships between the individual and society.

World events have moved swiftly since this study appeared. With Communist nations vying with us in extending friendship and trade, as well as technical and financial aid, these underdeveloped countries need no longer depend only on the West for necessary external aid, as the author assumed. This double embrace, while it might smother the area altogether, could also greatly accelerate its development.

HELEN B. LAMB, *Massachusetts Institute of Technology*

HISTORY OF ECONOMIC THOUGHT

The Economic Thought of Franklin D. Roosevelt and the Origins of the New Deal. By Daniel R. Fusfeld. (No. 586, Columbia Studies in the Social Sciences.) New York: Columbia University Press, 1956. Pp. 337. $5.00.

Franklin Roosevelt and his New Deal are beginning to receive some serious scholarly attention, as time and the inevitable doctoral dissertations grind on. If these subjects cannot yet be recalled in tranquility, they are at least no longer in the category of current events. Coming after the first two volumes of Frank Freidel's brilliant biography, and the solid study of Roosevelt's governorship by Bernard Bellush, Mr. Fusfeld's book is remarkable both for its objectivity and its clarity of thought, and it is notably free from jargon. Indeed, in a quiet and gentlemanly way, Fusfeld polishes off the myth of the uneconomic F.D.R. so deftly that it is difficult to see how it can be resurrected. The result is a superb analysis of the development of Roosevelt's economic thinking by the time he was first elected to the Presidency.

Fusfeld himself best sums up his thesis: "The record shows that Franklin D. Roosevelt had a well-developed economic philosophy—largely derived from Progressivism—which was the basis for his political program. It also shows that he was quite willing to postpone, shift his ground, and compromise in order to reach his goals. But the goals were there and Roosevelt knew what they were" (p. 5). Although Roosevelt was vitally interested in economic questions, he preferred not to make his most specific pronouncements during campaigns. Indeed, one of his greatest weaknesses as a statesman was his conviction that campaigns were not for voter education on issues but for winning votes.

Firmly believing that there is no substitute for going to the sources, Fusfeld centered his work at the Roosevelt Library at Hyde Park, painstakingly searching for every significant sign of F.D.R.'s thinking on economics. The arrangement of the book is chronological and its technique is to indicate Roosevelt's economic ideas "as they actually emerged and gained meaning when applied to the problems of his era" (p. 6). F.D.R.'s economic doctrine was, like Progressivism itself, eclectic. Fusfeld rightly felt that looking for the precise intellectual antecedents of Roosevelt's thought would not be a very profitable undertaking, even if such a method is currently in fashion. Fusfeld is willing to go wherever the evidence leads him, and he doesn't hesitate to indicate his differences with the interpretations of such well-established scholars as Broadus Mitchell, George Soule, and Richard Hofstadter.

Of particular interest to those of his readers who are members of the teaching profession is Fusfeld's analysis of notes taken by the future President on his course in political economy at Groton School and a summary of notes taken by a contemporary on courses F.D.R. had at Harvard. Fusfeld shows clearly that Roosevelt came under the influence of reform-minded professors: "If we can distinguish between a '*laissez-faire* state,' a 'regulatory state,' and a 'welfare state,' Roosevelt's teachers would fall in the second category" (p. 34). Also of great interest is his description of the emergence of "A Regional Plan for New York State," and the effect this had in making the wider concept of economic planning acceptable to F.D.R.

In his sensible, restrained, and undogmatic way, Fusfeld has given us a first-rate monograph. It is to be hoped that he will pursue his study into the more complex area of Franklin Roosevelt's economic thinking in the New Deal years.

ROBERT E. BURKE, *University of California, Berkeley*

The Psychology of Economics. By Walter A. Weisskopf. Chicago: University of Chicago Press, 1955. Pp. viii, 266. $4.00.

Most students of economic thought content themselves with description and classification of the theoretical systems of the original thinkers. To Walter A. Weisskopf this is skirting the real problem: "Why do the great theorists think as they do?" More specifically, why do theoretical concepts resting upon unrealistic assumptions of doubtful scientific validity pervade economic theory, contributing to what Weisskopf considers the present "sad state of economics."

According to Mr. Weisskopf (in Part I of his work), the answers to these questions require the student to go beyond the traditional boundaries of economics. The individual theorist endeavors to provide a rational explanation for the economic phenomena which he observes in the real world. In this effort he is beset by psychological conflicts between his own internalized value complex and the observed phenomena. If these conflicts cannot be resolved, they may be consciously suppressed or subconsciously repressed by the theorist's choice of assumptions in order to construct a theoretical framework which gives him intellectual security. To the extent that the theorist's own value system may be culturally determined, the anxiety-creating conflicts are common to the whole culture. Thus any widely accepted theory provides a measure of security to the culture; it is "the individual answer to common problems of social importance."

In this book, Weisskopf has tried to uncover these "psychocultural conflicts" and to show their influence upon economic theory. To demonstrate his methodology, psychocultural analysis, he has explored the theories of economic value developed by the Classical economists (Smith, Malthus, and Ricardo), their antagonists (Marx and Engels), and the Neoclassical School (Alfred Marshall).

In Parts II and III of his work, the author traces the development of the Classical labor theory of value. He feels that this theory reflects the basic psychocultural conflict inherent in Western capitalism—the conflict between the anti-acquisitive Christian ethical system (arising in a precapitalistic culture) and that economic value complex referred to by Max Weber as "the spirit of capitalism." Despite the efforts of economists to divorce their discipline from the anti-chrematistic ethical system, it has remained as a subconscious psychological influence. With a background of Calvinist ethics, a theory of capitalism which bases economic values, in the long run, upon labor bestowed in production provides an ethical justification for capitalism. On the other hand, Weisskopf believes that Smith's multiplicity of value theories and Ricardo's straining to explain value solely in terms of labor indicate psychological anxiety as to the validity of this solution.

The weak section of *The Psychology of Economics* is Part IV. Mr. Weisskopf supports the Freudian school (or cult). And ever since Freud psychoanalyzed Leonardo da Vinci, Freud's followers have been busily disinterring the minds of departed artists, authors, and musicians. It was perhaps too much to hope

that economists could indefinitely escape this sort of resurrection. Part IV opens with a chapter on universal symbolism of the male and female in primitive societies, complete to naked virgins pulling the first plow of Spring. Weisskopf then tries to trace this same symbolism among the protagonists of capitalism (Malthus and Ricardo) and their antagonists (Marx and Engels).

All four of these writers are said to exhibit pretty clear indications of the psychological male-female dichotomy loosely subsumed under the title of "Oedipus complex." Malthus was concerned about "the niggardliness" of the earth and female fecundity. Ricardo developed an aggressively masculine labor theory of value and criticized landlords. Here indeed is evidence of a psychological attachment to the father image (patriarchal capitalism) and hostility toward the mother image ("Mother Earth"). On the other hand, Marx and Engels are profeminine and hostile to the father image of capitalism.

Mr. Weisskopf exerts himself to prove this theory in the case of Karl Marx, whose labor theory of value is just as masculine as that of Ricardo. Marx's masculinity, however, symbolizes the "father-son conflict." The supreme antagonist of capitalism identifies himself with the son (the proletariat) desirous of possessing the female (the means of production) but blocked by the presence of the father (the capitalists). In the usual psychological situation, the son may have a subconscious fear of castration. The Marxian parallel to this fear is the workers' actual loss of surplus value. Did not Marx use the mathematical prime to indicate surplus value in his equation of exchange $(M - C - M')$? "This," says Mr. Weisskopf, "is an obvious penis symbol."

To outsiders (including economists) psychologists seem to be divided into two groups, those who have the Faith and those who do not. The true disciples of Freud may well consider that Mr. Weisskopf has made an important contribution in Part IV. Those infidels who refuse to recognize the phallic symbolism of pencils, telephone poles, and mathematical primes, are probably not qualified to judge this contribution.

Mr. Weisskopf next turns to an excellent description and a penetrating criticism of Marshallian value theory. Again he finds evidence of the cultural conflict between ethics and modern capitalism. The behavior of rational individuals, each seeking to maximize his own welfare, will lead to a socially optimal allocation of resources, and thus economic individualism is ethically justifiable. Since nonrational individual actions threaten the attainment of long-run equilibrium ("the Marshallian kingdom of heaven"), Marshall places an ethical premium on economic rationality.

Although the author is severely critical of Marshallian rationalism, one can detect evidence of subconscious ambivalism in Weisskopf's own mind. He feels that, despite its foundations in shifting sand, the rational economic order of Marshall provided man with the intellectual security he requires to tolerate life in a capitalistic industrial culture. The relegation of equilibrium analysis to the status of a logical "tool" threatens this psychological security. Thus Weisskopf believes that in modern economic theory, "A picture of the individual, the economy, and the universe emerges, full of uncertainties, without ethical guideposts, relativistic, probabilistic, and appropriate to the precarious situation of mankind in the mid-twentieth century."

Despite this reviewer's reaction to Part IV, Mr. Weisskopf has written a scholarly and highly provocative book. It should do much to broaden the intellectual horizons of both students and teachers of the Dismal Science. In particular this work should stimulate the interest of economists in the field of social psychology for the purpose of closer examination of many premises which we so glibly assume in economic theory.

WALTER S. MEASDAY, *University of Maryland*

Policies to Combat Depression: A Conference of the Universities-National Bureau Committee for Economic Research. (A Report of the National Bureau of Economic Research, New York.) Princeton, N.J.: Princeton University Press, 1956. Pp. x, 417. $8.50.

The thirteen papers which have been collected in this volume were first delivered at conferences sponsored by the Universities-National Bureau Committee for Economic Research, held in October 1953 and May 1954. Their general quality is such as to confront the reviewer with *un embarras de richesses,* and in concentrating his attention upon several, he is not passing judgment upon those which have been excluded.

Readers concerned about the impact that a severe cyclical contraction would have upon the economy, which in the last decade has been scathed only by the mildest of recessions, will find the quantitative studies of the "built-in stabilizers" rewarding, if not comforting. David Lusher, in a paper on "The Stabilizing Effectiveness of Budget Flexibility," finds—after setting forth his assumptions in a meticulous model—that in the event of a recession the decline of Gross National Product will be mitigated by from 32 to 40 per cent as a result of the stabilizing effects of the revenues and expenditures of the Federal, state, and local governments. In an investigation of the behavior of individual income tax yields during a recession, Joseph A. Pechman concludes that revenues would automatically decline by two billion dollars in the event of a 5 per cent decline in Total Adjusted Gross Income, and by as much as ten billion dollars if incomes fall by 25 per cent. Ida C. Merriam estimates that 20 per cent of the wage losses during the 1948–1949 recession were compensated through the payment of state unemployment insurance benefits, but the fact that more than three million persons exhausted their benefits by the second quarter of 1950 points to an obvious weakness in the system.

The most elaborate as well as the most controversial of the studies of "built-in stabilizers" is that of Karl Fox on "The Contribution of Farm Price Support Programs to General Economic Stability." Fox's econometric mountain hath labored mightily to bring forth a mouse. He concludes, after an analysis based upon questionable estimates of regressions between key variables and replete with "path multipliers," that the farm price-support program ". . . might reduce the decline in GNP and disposable personal income by something like ten per cent . . ." (p. 339). If true, it is doubtful that such a result would be desirable, for according to Fox's data (p. 338) the stabilization of farm prices would result in a level of *real* disposable income that would be about 1 per cent lower than that which would prevail in the absence of a price-support program.

For insight into the problems confronting those responsible for recommending appropriate stabilization policies, one must turn to Benjamin Caplan's account of the 1948–1949 recession. A former member of the staff of the Council of Economic Advisors, Caplan's discussion of the government's failure correctly to diagnose the downturn and its better record in calling the subsequent upturn is witty, wise, and literate. "Governments," he reflects, "like to appear in firm command of the situation, and nothing would weaken that appearance more than frequent changes in position" (p. 52).

Unless one adheres firmly to the view that the economy has been rendered immune to severe contractions by the forces of "secular exhilaration" generated by large-scale armament expenditures—a position which may soon attract as many followers as did the stagnation thesis in the late thirties and early forties—an examination of the contents of this volume cannot lead to complacency. While the automatic stabilizers constitute a gain in the quest for stability, they do not appear to be impressively strong, and the discretionary measures which governments may adopt are double-edged swords, capable of creating further imbalances, as David Blank points out in his discussion of Leo Grebler's paper on "Housing Policies to Combat Depression." The dilemma, however, does not counsel inaction, for as Caplan remarks, "It is not an answer to say that government should not take a position—it must do so" (p. 52).

HARVEY H. SEGAL, *Rutgers University*

Histoire des faits économiques des origines au XX^e siècle. By J. Maillet. Paris: Editions Payot, 1952. Pp. 362. 800 francs.

One of the drawbacks of the otherwise admirable custom of dispensing with textbooks in European universities is the apparent inability of some scholars to distinguish a textbook from a work of "general synthesis." The volume at hand, although it is not bound in the format of the *cours* which sometimes do the work of textbooks in French universities, reads like the printed lectures of a conventional, therefore dull, course in the economic history of the Western world.

Dismissing its pretension as a "general synthesis," what can one say for the book as a text? It is brief—about half the length of comparable books in English. After a relatively lengthy "methodological" introduction—a strong point with most French economic historians—the *étatiste* and "controlled" economies of ancient Egypt and Mesopotamia and the somewhat freer ones of Greece and Rome are polished off in fifty pages; medieval Europe rates seventy-five pages, and the "world" economy of the early modern period (to 1750) a like amount; the period from 1750 to 1914 gets slightly more than one hundred pages, and there is a brief "conclusion" on the period since World War I.

Brevity is frequently an infrequent virtue of scholarly authors, but in a text of this scope it leads to more oversimplification than is desirable even in an introductory survey. Maillet has made an obvious effort to present both fact and interpretation, but the "facts" are so highly compressed as to be virtually meaningless, and the generalizations exhibit but little relationship to the "facts" presented. It is almost as if the author had obtained his "facts" from one set of secondary sources and his generalizations from another. In short, the book

has little value for American scholars, and for beginning students—it is just as well that the book is written in French.

RONDO E. CAMERON, *University of Wisconsin*

Wesen und Ziele des Ordo-Liberalismus. By Dr. Ernst-Wolfram Dürr. Winterthur: P. G. Keller, 1954. Pp. 166.

Among the various brands of economic liberalism or *Liberalismus*—Neo-, Austro-, Chicago, and so on—*Ordo-Liberalismus* is a body of doctrine developed by German economists led by the late Walter Eucken and his Freiburg School, and by Wilhelm Röpke. The Ordo-liberal starts with the aim of so ordering competitive markets as to render impossible the monopolistic use of private property against the general interest. The extreme sense in which he interprets this aim leads him to require a state powerful and watchful enough to enforce *perfect* competition, which he regards as the natural economic "order." In fact, Professor Alexander Rüstow is quoted as calling upon liberals to demand "a strong state" marked by "authority and leadership" *(Führertum)*. In the economic field, at any rate, no intermediate bodies or groupings are considered desirable between this powerful state and the atomized, perfectly competitive mass of individual consumers and producers. This ordering of the economy is to be based on an economic constitution, the enforcement of which would presumably require large numbers of inspectors and regulators. Extremes, of course, meet, and not very much seems to separate the constitutional plans of the Ordo-liberals from the blueprints for socialized price mechanisms inspired by Pareto and Barone—at any rate on the production side. Presumably the similarities might not extend to distribution.

The Ordo-liberals are generally strongly opposed to Keynesian-type policies and are scornful of demands for economic "security." On the other hand, they allow a fairly wide field for state intervention, in other directions, notably (thus Röpke) in town and country planning and the use of land—anathema, of course, to other brands of economic liberals.

Dr. Dürr gives a detailed, balanced, and perceptively critical account of this school of thought, which had quite an important part to play in the ideological vacuum in Germany after 1945, but which, it seems, may have to modify somewhat its rather dangerously rationalistic and doctrinaire tendencies if it is to be of further service.

T. W. HUTCHISON, *The London School of Economics and Political Science*

MONEY AND PRICES

British Public Finances. Their Structure and Development, 1880–1952. By Ursula K. Hicks. (Home University Library of Modern Knowledge.) London and New York: Oxford University Press, 1954. Pp. viii, 225. $1.00.

In this little book Mrs. Hicks surveys developments in the public finances of Great Britain over a 72-year period that was marked by revolutionary changes

in expenditure, tax, and debt structures. In 1880, the date with which she begins her account, public expenditures represented only 12 per cent of the British national income; in 1952, when her story ends, the public sector of the economy accounted for roughly 40 per cent of national income. It was during this period that the income and capital taxes assumed a role of steadily increasing importance in the British tax system, and that the use of debt management as a controllable instrument of policy was discovered. These years also witnessed a sharp decline in the place of local government in the fiscal system, and of the local rate as a revenue instrument. In somewhat broader terms, they saw the transition from "the intense individualism of the liberal state to the group consciousness of the welfare state."

Mrs. Hicks undertakes not only to describe these changes, but also to analyze and interpret them, a task for which she is eminently qualified. It is no criticism of her book, however, to say that both the descriptions and the analysis are unlikely wholly to satisfy students of economic history or of public finance. This is a book which is addressed primarily to the general reader and to the student who wants to make a quick survey of Great Britain's evolving fiscal system. Of necessity it leaves out a great deal in the interest of brevity and readability. On the other hand, Mrs. Hicks has shown no inconsiderable amount of skill in highlighting those developments which contribute most to an understanding of the changes which have occurred in Great Britain over the past 75 years. Moreover, her analysis of the major trends in the public finances of that country are both interesting and informative. This book is well worth reading; and for those who would like to probe more deeply, a brief bibliography of carefully selected sources is provided.

E. Gordon Keith, *University of Pennsylvania*

The London Capital Market: Its Structures, Strains and Management. By Norman Macrae. London: Staples Press, Ltd.; New York: John de Graff, Inc., 1955. Pp. 285. $6.00.

One of the most valuable traditions of British economics has been the ability and willingness of nonacademic specialists to write books about finance. Walter Bagehot's *Lombard Street* and W. T. C. King's *History of the London Discount Market* are two eminent classics written in this tradition; another such book (but hardly a classic) is Ernest Seyd's little-known *Bullion and Foreign Exchanges*. Mr. Norman Macrae, a London journalist, has written a book that is partly reminiscent of two of these works. Like Bagehot he pleads a cause, and like Seyd he writes with easy familiarity and in great detail of the financial institutions and machinery in his *contemporary* City of London. Unlike King, however, Mr. Macrae makes little attempt to fill in the historical background of his subject, and student and nonspecialist readers may be sorely in need of additional reference works on British financial institutions as they read about *The London Capital Market: Its Structure, Strains and Management.*

The book is divided into two parts. The first fourteen chapters discuss the relative importance and functions of the institutions that comprise the two sides of the London capital market: the sources of supply of investable funds, and the principal users of such funds. On the supply side, the author takes us from

individual savers through the principal savings institutions to the government itself. On the demand side, the discussion examines classes of borrowers ranging from small businesses through large companies and foreign borrowers to the Treasury. The analysis of this complex market includes a study of the make-up and functions of the London Stock Exchange and of the specialized institutions that are meant to finance municipal housing and businesses like those which populate the so-called "MacMillan Gap." Throughout these chapters Mr. Macrae, aided by a mass of statistical evidence, advances his main thesis: British industry is threatened by the development of a system of taxation that is choking off the principal and traditional source of risk capital for industry—the individual, that is, noninstitutional, investor.

The final eight chapters deal with the role of the Bank of England and with the management and purposes of monetary policy. This section is valuable as a description of the weapons and mechanics of monetary control in present-day Britain, although the reader may find little that is new in the discussion of the relative merits of indirect and direct credit controls. The longer-term usefulness of this section of the book will no doubt be lessened somewhat by Mr. Macrae's almost exclusive concentration on the problems of controlling inflation. Presumably a time will come in Britain when monetary policy will need to encourage an expansion of credit in order to stimulate business activity.

While I cannot agree that the book entirely succeeds as a "much-needed general textbook on the modern City of London," I feel it will be of considerable value, particularly to specialists. The book contains a wealth of information that it would be difficult to find elsewhere; but the plethora of statistics in the text may tend to distract the reader from the author's main arguments. Moreover, in the first half of the book the style is excessively "popular." This is strange, considering the undoubted talents of the author. Why "write down" to the likely readers of this book?

Such criticisms, however, are not meant to impugn the usefulness of the book. Certainly Mr. Macrae's principal thesis deserves to be answered by those economists who maintain that, in present-day Britain, the leveling of incomes through taxation will not necessarily impede Britain's industrial growth.

J. R. T. Hughes, *New York City*

Prix et monnaies au Portugal, 1750–1850. By Vitorino Magalhães Godinho. (Publication of the Centre de Recherches historiques of the Ecole pratique des Hautes Etudes, VI[e] Section, Paris.) Paris: Armand Colin, 1955. Pp. xvi, 371, folding map and graphs. 1,400 francs.

The destiny of Portugal in the century after 1750 has all the makings of classic history. In these years, the scene was constantly troubled, and even dominated, by sudden disasters and political catastrophes—by earthquake in 1755 and invasion in 1761, by partition (1807) and the Peninsular War, by revolution (1820) and the abandonment of Brazil (1825), and finally, after 1834, by two decades of endemic strife. All these have become monumental subjects for the social and political historian. In contrast, the history of prices has been neglected. It has not been so privileged here as in Spain, where so much has been brought to light by the studies of the historian and economist Earl J.

Hamilton. A book on the history of prices and money in Portugal must, therefore, be welcome; the analysis of Vitorino Magalhães Godinho covers the period from the mid-eighteenth to the mid-nineteenth century.

The market for agricultural products lies at the heart of this study. The price series—principally for wheat, maize, rye, barley, rice, olive oil, butter, salt, wine—have been constructed from source material in Lisbon and in the provinces. The latter data have been taken from the Misericórdia of Oporto, the province of Braganza, the Misericórdia of Setúbal, the Terreiro do Pão in Evora, and (this time for wheat) from the Azores. Emerging from this material, the general and composite movements follow the accepted trends of prices in Europe: notably, a sharp rise from the 1790's to the 1810's and then a persistent recession to the 1840's, when the international economy passed a great turning point in growth. These price series have been supplemented by statistics relating to the coinage and note issues and the movements of wages and foreign exchange.

Nevertheless, Godinho (p. 11) views his documentation with modesty, preferring to regard his researches as a tentative beginning rather than a final analysis. In two instances, at Lisbon (p. 75 and table 6) and in the province of Braganza (p. 86 and table 8), the series have been completed from secondary sources. Yet it is not this that takes the reader's eye. If there is weakness, it must be that the problems and interpretations envisaged—the "problèmes à poser" in the last section of the book—are of the widest and most controversial character, bearing above all on the theories and dynamics of predominantly industrial economies. How can these suggestive ideas be substantiated? It must necessarily be a difficult task in the case of Portugal, which remains agricultural; and difficult, too, in this particular period, during the great transformations of the early nineteenth century, when Portugal fell further and further behind in industrial development. Since the Methuen Treaty of 1703 at least, the "ancient ally," the Lusitanian, was closely attached to the economy of Britain, where by 1850 the larger part of the labor force was no longer engaged in agrarian pursuits. We must nevertheless be grateful to M. Godinho for opening this important subject. The book itself has been well made. The maps and graphs are clear and easy to follow. Lucien Febvre has written, as always, a graceful foreword.

F. C. Spooner, *University of Chicago*

Country Banking in the Industrial Revolution. By L. S. Pressnell. New York: Oxford University Press, 1956. Pp. xvi, 591. $11.20.

In the course of his book on Peter Stubs, published in 1939, Professor T. S. Ashton posed a series of questions about the relationship between industry and the country banks, and urged some student "to make the part played by the banking system in the financing of the Industrial Revolution the subject of specialized research." Nearly ten years later he persuaded Dr. Pressnell, then a postgraduate research student, to work upon the records of one particular banking firm. This specific investigation soon broadened out into a full-scale inquiry into the organization of country banking between 1750 and 1844 and its place in the economy during those critical years. The results of this research, now published, provide us with an important pioneer study, most ably executed, which no student of this period can in future afford to ignore.

The book opens with a discussion of the pace at which country banking developed and the occupations of those who went into this branch of business outside London. Growth became really marked, not from around 1760, but from the end of the eighties—further confirmation that we tend to antedate the beginnings of the Industrial Revolution. Of the early bankers, some were drawn from the ranks of the industrialists needing cash for wages, bills to pay for raw materials, and additional capital to finance the growth of their manufacturing ventures. Others came from among the money scriveners, men accustomed to finding outlets for money and to arranging mortgages. Yet others consisted of those who were in a position to provide remittance facilities: wholesale traders (especially in drapery) and collectors of the public revenues (to whom a particularly valuable section is devoted). Contrary to widespread belief, retail shopkeepers very rarely developed into bankers. Nor did cattle drovers: the "alleged bovine paternity" of banking is seriously challenged. The structure of the banking system is then considered: the relationships, sometimes personal and sometimes purely financial, between the different country banks on the one hand, and between the country banks and their London agents on the other. The rise of the London bill brokers is discussed at some length and several misconceptions corrected.

The scene having been set, most of the rest of the book is concerned with the detailed working of the country banks—with, for instance, the volume of note issues, the size and character of deposits, the distribution of the bankers' resources. Separate chapters are devoted to the finance of industry, agriculture, trade, local authorities and public utilities. The role of the country banks in providing short-term loans for enclosure and in holding the commissioners' surplus monies draws attention to the need for a long-overdue study of the financing of enclosures. The banks also emerge as a far more important factor in the mobilizing of capital for public utilities than has been generally supposed.

Dr. Pressnell takes a much more favorable view of country banking than that generally held today. For most of the book his opinions are unobtrusive. But in his penultimate chapter, devoted to a careful study of the various crises between 1788 and 1825, he comes right out into the open. Lack of understanding of bankruptcy procedures, he urges, has led to a gross exaggeration—by Clapham and others—of the number of failures. In any case, the country banks were not the only possible causes of these crises: variations in the harvests, overseas trade and, particularly, public policy in government finance and currency could all have played a part. The crises are examined one by one and the country banks, if not completely exonerated, are at least excused from much of the blame. So far as the greatest crash of all is concerned—that of 1825—the author advances compelling arguments for the view that the chief weight of responsibility should fall upon the government and the Bank of England.

Dr. Pressnell makes skillful use of a remarkable mass of manuscript material, much of which has never been consulted before. He ranges far beyond the records of the dozen or so banks which he was able to trace and the country accounts of some of the London agents. He was one of the first scholars to go willingly to the Bankruptcy Court and this source has yielded a rich store of evidence. So, too, have the County Record Offices, particularly on the financing

of public utilities. The picture has been filled out from lawsuits, wills, and other legal sources; the Liverpool, Vansittart, Huskisson, and Peel papers in the British Museum; a wide range—both geographical and chronological—of newspapers; and the evidence given to numerous parliamentary committees on banking and on other topics. At times all this material gives rise to rather a catalogue of facts as the card index is written up into the text. The book as a whole, however, is eminently readable. For reference purposes the index is generally thorough; but for some strange reason the towns in which the various banks were located have often not been included.

Specialists in banking may have their own detailed criticisms to make. To me, taking the more general viewpoint of the economic historian, the section on the origins of country bankers seems the most vulnerable part of the book. Businessmen often lacked the clear and single-minded purpose which historians are sometimes inclined to impute to them. They often had a number of interests going at the same time and concentrated eventually upon those ventures which proved—often chanced—to be the most profitable. For its first four years the Worcester Bank—as we learn later in the book—was "conducted . . . by way of Experiment in respect to the advantage that might be made in the said business." Should not this tentative approach, rather than a stricter classification, be the keynote to the section on the origins of country bankers? (Possibly the private correspondence of partners, or intending partners, which is now hidden away in family archives, or lodged in unexpected bundles in Country Record Offices, may eventually shed some light here.) This, however, is a minor criticism. So, too, is the absence—apart from occasional footnote references—to any books published since 1952. At the beginning of the section on economic fluctuations, for instance, we learn that it was impossible to take account of the work of Gayer, Rostow, and Schwartz. This would also explain the absence of references to Arthur Raistrick's *Dynasty of Ironfounders* and John Rowe's *Cornwall in the Age of the Industrial Revolution*.

Dr. Pressnell has opened up a considerable field for research. This book will, no doubt, encourage others to make use of banking material, and it will certainly cause teachers of the economic history of this period to revise some of their previously held notions. The frontier of knowledge has been pushed forward. We are now getting nearer to answering the questions which Professor Ashton posed in 1939.

T. C. Barker, *The London School of Economics and Political Science*

Problems Historical and Numismatic in the Reign of Augustus. By H. R. W. Smith. (University of California Publications in Classical Archaeology, Vol. II, No. 4.) Berkeley and Los Angeles: University of California Press, 1951. Pp. x, 133–230. $1.00.

Using numismatics as his point of departure, Smith re-examines several minor historical problems, one of which has interest for the economic historian. Smith attacks vigorously and effectively the widely accepted notion that for about fifty years Augustus and Tiberius restricted the issue of gold and silver coins to a single mint, that of Lugdunum in Gaul. Unfortunately, the contribution he has

to make is nearly drowned out by pages of purple prose, by an endlessly repeated insistence on the evidence of a single coin that is more likely than not a forgery, and by dependence at a crucial point on very dubious psychological explanations for policy decisions (the neuroticism of Augustus and the stolid conservatism of Tiberius' character).

M. I. FINLEY, *Jesus College, Cambridge*

POPULATION AND LABOR

The Industrial Worker in Pennsylvania, 1800–1840. By William A. Sullivan. Harrisburg: Pennsylvania Historical and Museum Commission, 1955. Pp. vii, 253. $3.25.

Much of the history of labor is local history, since the most significant activity of the labor movement, from the point of view of the worker, is local. Because of this fact, the custom of using published journals and convention proceedings as almost exclusive sources for labor history has produced some curious and subtle distortions of the record, especially in works following the interpretations of the John R. Commons school. There is a great need for monographs on state and local areas and on single groups of laborers, which will make use of manuscript and other sources to reveal more of the experience of the worker and reduce emphasis on the "labor leader" to proper proportions.

Mr. Sullivan has done an excellent job of digging into newspapers, company account books, and a multitude of other local sources to find the substance of his volume. We must admire his diligence in demonstrating how much can be found in a variety of places to shed light on the early labor movement. It is of course asking too much to wish that he could have found records of unions and other labor organizations of such an early period. But he has made use of labor newspapers, including some edited by rank-and-filers, though mostly for factual data. Surely some of these could have been used to reveal more of the thinking and experience of the worker than appears in the book.

The book presents detailed summaries of the state of industry, the situation with respect to wages, hours, and conditions of labor for many types of workers, the organization of unions, strikes, relations with government and the courts, and the labor politics of the Jackson era. The last section is the most interestingly developed, providing a superb illustration of the futility of arguing about class lines in Jacksonian politics, as historians have been doing for the past decade. The worse-than-loose use of the term "workingman" in the 1830's is shown beyond the possibility of misunderstanding by Mr. Sullivan's account of "worky" parties in Philadelphia, Pittsburgh, and elsewhere. These parties were as likely to be linked to anti-Jackson tendencies as to the Jackson bandwagon. So true is this that one is moved to speculate whether this might not be evidence of a "Tory radicalism" worthy of further study and explanation.

The appendix includes lists of trade societies in Pennsylvania in the 1830's, strikes between 1800 and 1840, and votes in presidential and gubernatorial elec-

tions from 1828 to 1840. There are well-organized statistical tables in the text. Altogether, the book is a valuable collection of data for future scholars.

It is a pity that the presentation of the material is not as worthy of praise as the material itself. Mr. Sullivan desperately needed the services of a good editor. His writing is clumsy, unclear, and, at times, ungrammatical. Even the scholarly specialist will suffer through this prose, especially when it comes to determining what meaning is to be taken from some of the elaborate detail. Part of the trouble is that Mr. Sullivan has not himself digested fully the meaning of his own discoveries. What are we to make of the assertion that "the impetus for the great trade union movement of the 1830's appears to have come from these oppressed factory workers" (p. 104), followed by evidence that the skilled craftsmen provided leadership, funds, and the continuing organizations which sustained the movement? Probably Mr. Sullivan meant to say something other than what he said, but the reader has only his actual words. Many sentences cry out to be rewritten, in the interest of both grace and clarity.

Academic writing is rarely notable for beauty, but this book is an outstanding example of the kind of work which should be prepared for the public before being put in print. In better form, it would be an invaluable addition to the history of American labor, but as it is, it remains raw material, awaiting the ministrations of somebody who will combine scholarship with skill in the art of historical writing.

JOHN PHILIP HALL, *University of Baltimore*

Industrial Relations in Australia. By Kenneth F. Walker. Cambridge: Harvard University Press, 1956. Pp. xviii, 389. $7.50.

Fifty years ago Australia and New Zealand won world-wide repute as economic and social laboratories. Of the experiments conducted therein, the best known were the efforts to make industrial relations "a new province for law and order," with wage boards and arbitration courts dedicated to the propositions that every worker should be paid a "living wage" and that all disputes must be peacefully settled. During the last quarter-century, however, Australia's economics, like Eire's politics, have dropped out of the news. Most of us outsiders have assumed that the new province had been well and truly established, that all labor-management problems were being smoothly handled by state or federal tribunals, and that the strikes occasionally reported in our newspapers were due to Communist agitators, a heat wave, or sheer boredom with industrial pacifism.

Mr. Walker's study is therefore valuable for two reasons. In the first place, it brings the story up to date. The "Arbitration Experiment" is described and discussed in four chapters (1, 2, 8, 12). We are reminded of its comprehensive scope: over 2,400 awards or agreements were in force in 1940; 85 per cent of all male employees and 90 per cent of all female employees were covered by them in 1948; and the percentages for white-collar jobs (banking, insurance, "trading," etc.) were little different from those for hornyhanded tasks (mining, manufacturing, building, transportation).

In the second place, Mr. Walker presents detailed case studies of "the pattern

of industrial relations" in seven important occupations—furniture making, lead-zinc ore mining at Broken Hill, meat slaughtering, coal mining, sheepshearing, stevedoring, and the manufacture of all kinds of metal goods. Like most students of industrial relations today, he insists that "progress in this area will come mainly from problem-centered interdisciplinary research utilizing economics, psychology, political science, history, and sociology" (p. xvi). He himself is a one-man interdisciplinarian: professor of psychology, well drilled in economics and anthropology in Australia and at Harvard, and with ten years' practical experience as a staff member of the Australian Department of Labor and National Service. He is therefore well equipped for the avowed attempt to put his analysis in an "ecological" framework, seeking "the interaction of employers and employees in an economic, technological, and socio-political environment" (p. xvi). If he had not forewarned me of this technique I should not have noticed it and would merely have decided he had a lot of common sense and an awareness of the interdependence of everything—which may be a compliment to, or a reflection on, the cult of interdisciplinariology.

The case studies follow a common plan. First the pattern of industrial relations is described and changes (if any) in it are noted. Then follow sections on the organization of the industry, its development, technology, working conditions, market, capacity to pay, etc.; on the union (or unions) in terms of structure, objectives, policies, leadership, and attitude toward collective bargaining, "direct action," use of the arbitration machinery, and left-wing ideas; on the employers' associations, their policies, objectives, degree of solidarity, and attitudes; and finally, a section on "Determinants of the Industrial Relations Pattern."

Following this plan through seven case studies gets to be quite dreary, with much repetition, tripetition, even polypetition, which should have been ruthlessly dealt with by the author's thesis adviser at Harvard or by a hard-boiled editor. Yet the results are well worth while, for they reveal a great diversity of patterns, of ability to change them, and of "determinants," even in a country where arbitration tribunals, powerful unions, and strong employers' associations are the standard eternal triangle. In a fascinating table (p. 346) these differences are set out in terms of the frequency of "stoppages," the degree of "mutual acceptance" and "co-operation," the nature of "personal relations," the role of the tribunals, and the amount of "change." In each column the rating ranges over the whole scale. For example, it runs from no stoppages in the furniture trade, through "frequent and severe [strikes] early but moderate later" in the Broken Hill mines, to "very frequent and some very severe" in coal mining and stevedoring. As for mutual acceptance and co-operation, the furniture men and the Broken Hill miners, the latter once the toughest tartars in the continent, have found an "axis of development" toward harmonious relations, so strong at Broken Hill that the role of the tribunal is scaled as "none"; but in slaughtering, stevedoring, and coal mining co-operation is nonexistent, personal relations are bad, and the tribunals play an active part in trying to keep the cold war from becoming hot.

The "determinants" of these differences are many, and Mr. Walker assesses their importance shrewdly. Insofar as he reaches a general conclusion, it is that

any pattern of industrial relations depends basically on the character of the industry, especially its market conditions and technology. These two factors "determine the problems of relationships that are posed for solution by the parties," and in some instances those problems "will not yield without a modification of market conditions or technology" (p. 353). This hypothesis is far from new, but its wider implications are well worth testing in terms of North America and Europe.

HERBERT HEATON, *University of Minnesota*

Human Relations in the Industrial Southeast: A Study of the Textile Industry. By Glenn Gilman. Chapel Hill: University of North Carolina Press, 1956. Pp. xii, 327. $5.00.

For prospective executives of cotton mills in Georgia this text, oriented to the sociology of the worker and written in the vernacular and from the viewpoint of the regional textile official, provides a suitable introduction to personnel problems. For the economic historian it presents an illuminating rationalization of the origin of a special industrial situation.

Because modern industry requires a division of labor, high tool costs, specialized worker skills, and differentiated managements, the worker does not achieve a feeling of function, recognition, and status. Against this general sociopsychological background the development of the cotton textile industry in the Georgia Piedmont is traced in elaborate detail. The latent industrial nature of the region and technical skills of its people were developed by the first "Cotton Mill Campaign" begun in the 1880's. During the Campaign local communities built and financed mills to provide work for upland families displaced from submarginal farms. Mr. Gilman carefully distinguishes these hill and mountain folk from "the simon-pure white trash who came out of the piney woods and the sandhills" of the coastal plain (p. 165), and depicts their folkways as unwritten, unspoken rules of individual and group conduct to which both employee and employer must conform.

Firms moving south during the "New Cotton Mill Campaign" of the 1920's found it impossible to continue the massways of large Northern industry and adjusted their personnel policies to the mores of this society. Mr. Gilman believes that strikes and union activity of the 1920's and 1930's resulted from the failure of both old and new firms in the region to maintain constant rapport between top management and labor under the folkways of the group.

When managements re-established communication with their workers through (1) personnel departments, (2) accessibility of mill executives to workers, and (3) Golden Rule policies, the workers and managements were able to drive the "foreign" unions from the region. Now, only 5,000 of Georgia's 109,000 textile workers are covered by collective bargaining contracts (p. 250).

As a full-blown and, perhaps, typical version of a special viewpoint this study warrants consideration. All save one of the details of its presentation are passed over in favor of a more fundamental question. The one exception is the title, which is entirely too broad; Mr. Gilman is not discussing the industrial Southeast but only a small and possibly unique part of it, cotton mills in Georgia

producing broad-woven fabric, yarn, and thread. The title of his doctoral dissertation, "Industrial Relations in the Georgian Piedmont" (University of Chicago, 1955), would have been appropriate.

The more fundamental question is that raised by the study as a whole: Is the economic and social well-being of workers in these mills greater because they have continued to operate as a folk society than it would have been had they assumed the more usual aspects of an industrial community? In spite of sixteen pages of photographs showing working and living conditions in mill towns and favorable conclusions as to employee-management relations, the uncertainty still persists. For instance, what is the relative influence on a worker's security of status of a layoff policy based on (1) the subjective criterion, loyalty to employer, as contrasted with (2) the more conventional and objective test, length of service?

Statistical comparisons might even be made with similar industries in the Southeast employing sizable numbers of workers such as primary metal works in Alabama, paper producers in South Carolina, tobacco manufactures in North Carolina, or even cotton textile mills in other parts of the Piedmont. For example, in 1954 the Bureau of Labor Statistics reported that average hourly earnings in Georgia cotton mills were $1.13 while those in comparable but somewhat more heavily organized mills in North Carolina were $1.17 (*Wage Structure: Cotton Textiles,* November 1954, pp. 32–35). This difference, although small in numerical terms, is significant in the highly competitive cotton textile industry and exists not only in over-all averages but prevails for both men and women in almost every production occupation in these mills. These data may be an intimation of the possible results of a more detailed investigation, for in spite of Mr. Gilman's findings one might still suspect that isolated mill-town paternalism is not the only or perhaps even the best solution to industrial relations in Georgia.

Lloyd Saville, *Duke University*

Jobs and Workers in India. By Oscar A. Ornati. (Publication of the Institute of International Industrial and Labor Relations, Cornell University.) Ithaca: Cornell University, 1955. Pp. xix, 215. Paper $3.00; cloth $4.00.

This third report of the Institute is a "handbook-type study" designed for American specialists in labor matters who wish an introduction to the particular problems of labor and industrial relations in India. The framework and orientation is consciously Western since it is designed primarily for a Western audience, but its breadth of treatment will make it a valuable summary for the Indian student as well.

The first three chapters deal with the labor force and the development of an industrial work force. The concept of a labor force hardly fits the Indian situation; although 37 per cent of the population is "economically active," this study confines itself to the seven million nonagricultural wage workers who make up only 2 per cent of the population. This pool of industrial labor was made available by the villages during the last half of the nineteenth century as rapid population increases left ever-larger numbers unemployed or underemployed in agriculture. Increasing numbers of village craftsmen sought industrial employment under the impact of British manufactures, particularly Manchester cottons.

This work force has never become committed to industry, but maintains close ties to its village roots. Many problems of Indian labor such as high absenteeism, high turnover, inefficiency, wasteful recruitment, and a low degree of organizability can be traced to this lack of commitment of the labor force.

Several chapters are devoted to labor conditions, wages, labor legislation, and the labor movement. The last mentioned is in part a protest of workers against the unfamiliar conditions they found as they shifted from agriculture to urban employment. From its beginning in World War I to Indian independence the labor movement was closely bound to the independence agitation. Since independence the major groupings of labor have been adjuncts of the leading political parties.

Collective bargaining in the Western sense is conspicuous by its absence. Though unions claim over three million members, their lack of discipline forces them to turn to the government for strength in their unequal encounter with employers. Government, generally favorable to legitimate union demands, feels it must also regulate industrial relations in the interest of industrial peace and production. A pattern of compulsory arbitration thus takes the place of collective bargaining, and the right to strike is limited.

This book is the most concise survey of Indian labor relations that this reviewer has seen. It does not include any discussion of agricultural labor, which of course makes up the majority of the Indian labor force. Nor does it discuss such topics as housing, labor welfare, health, and the workers' standard of living. The reader is told in the preface that the book was not intended to be a critical or interpretative survey of Indian labor and this intention is fulfilled. As a descriptive introduction for the Western specialist, it serves its purpose admirably.

WILLIS D. WEATHERFORD, *Swarthmore College*

Planned Migration: The Social Determinants of the Dutch-Canadian Movement. By William Petersen. (University of California Publications in Sociology and Social Institutions, Vol. II.) Berkeley and Los Angeles: University of California Press, 1955. Pp. viii, 261. $3.50.

This work is primarily an attempt to apply the conceptual schemes of prior studies to Dutch and Canadian migration problems and to re-examine some of the generalizations previously applied to the broad problems of population and migration. The historical background attending Dutch emigration over the years since 1840 (Chapter 2) contains highlights of Dutch social history which are all too little known in this country.

The section on the history of Dutch emigration (Chapter 3) is mainly concerned with the question of why, during the years 1840–1914, the outflow of people from the Netherlands never developed from the stage of "group migration" to that of "mass migration." (William Petersen uses the concepts of J. S. Lindberg who defined mass migration as a socially motivated movement.) In applying these concepts to the Dutch case, however, the question of how the shift from individual to social motivation can be indicated empirically is not discussed. Neither is there any discussion of what proportion of the population must emigrate over what period of time in order that the movement be termed

one of mass migration, nor is there analysis of the type of individual reaction that might indicate social motivation.

The discussion of the volume of Dutch emigration before World War I is further confused by the implicit use of net rather than gross emigration data. In applying a concept defined in terms of motivation to a country like the Netherlands, experiencing an inflow of settlers from the east (mainly Germany) as well as an outflow of Dutch to the new hemisphere, only the gross concept is appropriate. In fact, the only migration data that exist are those implied by the difference between the rate of growth in the total population and rate of natural increase. One cannot escape the notion that if gross migration data were available, the problem might evaporate. At least for the period 1900–1930 it is stated that the "emigration rate" (presumably gross emigration as a per cent of the population) from the Netherlands was the same as that from the Scandinavian countries; only net emigration was much lower.

The discussion of Canadian attitudes toward immigration (Chapters 6 and 7) suffers numerous misconceptions because it ignores the history of Canada before 1900. The author deduces, for example, that since confederation in 1867 periods of increased immigration into Canada have resulted largely from the Canadian government's policies favoring immigration (p. 140). Yet prior to 1900 the Dominion and provincial governments and private institutions had made strenuous, but unsuccessful, efforts to attract immigrant settlers to the Canadian West, using the same techniques (campaigns in Europe and the United States and even subsidies to returning Canadians) that were successful after the turn of the century. Or again, it is stated that over its whole history, the economy of the Maritime provinces has been based on primary industry (p. 149). Before the advent of the steamship, however, the Maritimes represented a balanced, industrialized economy whose secondary industries, ships' stores and shipbuilding, were as important as its primary industries, and whose "Bluenose" sailing vessels were known around the world.

The sections dealing with present-day Dutch population problems (Chapters 4 and 5) are the most satisfactory. The high rate of Dutch natural increase combined with postwar economic problems leads the author to apply the term "irrational" to the value placed by the Dutch on traditional family norms. Whether these are irrational, however, depends on where, in a scale of preferences, material well-being is ranked in relation to family ties, and in the long run on Dutch ingenuity in producing for a world market.

PENELOPE HARTLAND, *Washington, D.C.*

NATIONAL ECONOMICS

Personal Income During Business Cycles. By Daniel Creamer, with the assistance of Martin Bernstein. (Publication of the National Bureau of Economic Research, New York.) Princeton, N.J.: Princeton University Press. Pp. xlii, 166. $4.00.

Two kinds of economic statistics are studied by Mr. Creamer in this small volume. One is the structural change in income which occurred through business

cycles during the four decades from 1909 to 1949. The other is the pattern and timing of cycles in personal income. The study provides answers for such questions as: How is the distribution of income between rich and poor affected by the business cycle? Do the statistics of income reveal a developing "laboristic" economy? Has our economy become a more stable provider of income in recent years? How effective are the automatic stabilizers in smoothing out the cycles in personal incomes?

But the central concern is with the "statistical indicator" value of cycles of personal income and its components. The personal income cycles studied for the second half of the period showed a one-to-one correspondence with business cycles. The troughs of the two cycles coincided and the cycles of personal income lagged slightly. For the first half of the period, before the earliest date in the Department of Commerce monthly series, annual data had to be used with the result that the personal income series appears less sensitive, even to the point of failing to show a counterpart to a number of contractions in business cycles. A compact statistical description of this sort is also presented for components of personal income.

For example, the average of farm income cycles back to the 1870's does not display a great degree of conformity with business cycles. More interesting than the average, however, is the increasing conformity observed as the series come closer to the present. No doubt the change is the result of the phenomenal decline in the relative size of the agriculture sector of the economy and its consequent loss of independence. None of the other components reliably lead the business cycle either. For business forecasters, the cyclical analysis of personal income is disappointing.

But statistics of the severity (amplitude) of cycles of personal income components are important for other uses, such as judging the differential social impact of the business cycle. Creamer's results confirm most of the common notions of the relative severity of functional income cycles. Farm proprietors' income is most unstable, followed by nonfarm proprietors' income. Nonfarm wages and salaries and property incomes together are somewhat less severely affected by the business cycle. Farm wages and salaries are slightly more stable, and transfer payments are distinctly most stable.

In peaks *and* troughs of cycles during the forty-year period studied, labor's share of personal income was 60 per cent plus, proprietary income was 20 per cent, and property income was slightly less than 20 per cent. But these percentage figures are *averages* over the whole period. There were notable trends! Labor income rose from 53 per cent of the total in 1913 to 73 per cent in 1951, both peak income years. This increase is due largely to increases in transfer payments and growth in government wage and salary disbursements. Although the income of proprietors fell from 26 to 17 per cent, the decline occurred between 1913 and 1929 and the share of labor income going to corporation officers did not rise through the period. Hence, the increase in labor's share was not due to a shift in the form of business organization. The other declines in relative income hit farm proprietors, whose income fell from 10 to 6 per cent, and property owners, whose income fell from 21 to 10 per cent.

These sketchy figures do not of course do justice to the fascinating web of material Creamer presents. But Creamer's statistical riches are presented with

almost complete disregard for the hypotheses on which the data bear. Occasionally informal hypothetical statements find their way into the text when they are suggested by the data being considered. These hypotheses, however, are never considered in a systematic or definitive way. For example, one such hypothesis is stated thus: "It is well known that consumers are reluctant to alter their standard of living immediately upon suffering a reduction of income" (p. 35). We should therefore expect the lags in the peaks of labor income received from service industries to exceed the lags in commodity-producing industries. The statistical test of this loosely formulated assertion is restricted to two turning points between 1929 and World War II. The primary motive for publishing such flimsy evidence for such a vague hypothesis is to reveal these particular facts. The hypothesis-testing format is merely a stylistic device for enlivening what is sometimes a dreary uninterpreted set of figures. When the effort does not seem justified as a part of the economic-indicators-of-business-cycles enterprise, the researchers of the National Bureau business cycle project are in danger of discovering that the game is not worth the candle. It is doubtful that attempts at casual interpretation will lead to salvation.

The material might have been more usefully presented for the illumination of stabilization policy if the concept of the business cycle played a less central role and some attempt had been made to determine the effects of inflation on income structure. At no point is the distinction made between a prosperity phase that generates large price rises and a prosperity with stable prices. The National Bureau's commitment to the business cycle concept involves a gamble. If the cycle concept leads to successful indicator forecasting, it will yield a big "take." But while the wheel still turns and the game goes on, there is a continuous cost in lost opportunities.

In spite of the cycle orientation, Creamer has included a study of the countercyclical effectiveness of government automatic stabilizers, which is a most interesting part of the book. Three programs are considered. The farm program, Creamer reveals, had not been an important offset to loss of farm income. The offset provided by the unemployment compensation program is limited in severe recessions by exhaustion of benefit rights for large numbers of unemployed. Even the progressive income tax has a disappointingly small effect in counteracting income declines. Nonetheless, when the effects of the combined programs are considered, the total does seem quite important. (This is far from suggesting that complete reliance be put upon automatic stabilizers.) Unfortunately, Creamer makes no attempt to analyze the induced expenditure impact of these income changes or their associated multipliers.

R. S. Weckstein, *University of Buffalo*

The United States Patent System: Legal and Economic Conflicts in American Patent History. By Floyd L. Vaughan. Norman, Okla.: University of Oklahoma Press, 1956. Pp. xvi, 355. $8.50.

The present study is closely related to the *Economics of Our Patent System* published by the author in 1925. The general plan of the new book and many of the judgments have carried over from the earlier work, but the history of

judicial review has been greatly expanded. Furthermore, the changed attitudes of the courts give great importance to the consideration of the recent cases. Before 1925, adverse decisions were directed against patent pools designed to restrain trade, but little concern was shown over other forms of market control. After 1940, the courts imposed sharp restrictions on practices designed to use patent rights to establish monopoly power; whether by consolidation of holdings, license agreements, cartels, control of supplementary products, or mutual recognition of each other's patent rights without judicial test.

Many features of technical development gave new significance to patented devices as a basis for the concentration of corporate power. The recent cases represent an important phase in the interpretation and application of the antitrust acts and the Patent Act of 1952. However, the main body of the new interpretation involves direct reversal of earlier decisions. The survey of these decisions, class by class, is a striking demonstration of the flexibility of legal reasoning.

The author feels very strongly that the patent laws have ceased to give adequate protection to the interests of individual inventors and have become potent instruments in the service of corporations with hired inventors. Privileges designed to assure just rewards for invention in the interest of the inventor have been turned against the individual inventor and the public.

Mr. Vaughan feels that some of these abuses could be controlled by drawing a distinction between the individual inventor and the hired inventor; by setting a higher standard in rejecting and accepting applications for patents; by reducing the number of worthless patents by examination and the imposition of annual fees; by limiting the life of a patent to twenty years from the date of application; by accepting proof of suppression as a defense against a charge of infringement; and by vigorous enforcement of the antitrust acts.

Even such a bare outline of the compass of this study will convey a vivid idea of the wealth of stimulating and provocative material covered. Although it is possible to see a basis for distinguishing between technical advance in engineering and positive invention, it is not easy to define invention in terms that would remove all systematic group work from the category of genuine inventive achievement. Much organized research has undoubtedly been devoted to the perfection of engineering detail, and falls short of invention. But much basic research has been done in highly organized laboratories, and this kind of work is likely to increase. Research into engineering detail frequently leads to important and genuine invention. Advance in basic scientific knowledge is always stimulating to invention. Organized research will result in invention, whether the laboratories are broadly or narrowly organized.

The dominance of government-controlled research in the field of atomic energy is clearly desirable, but we cannot yet assume that basic research in the whole industrial field should be dependent upon the initiative of a government department or corporation. Although there are costs of basic research that cannot easily be covered by patent protection, it is hardly wise to force large corporations to place the full burden of primary research upon the general operating revenue.

Patent monopolies can certainly be abused, and perhaps the dangers of abuse increase when the scale of corporate enterprise increases. Patent monopolies are

more likely to be abused than the analogous privileges conferred by copyright. In the fields of literature and the arts, the abuse of power is sharply restricted by the range of substitution. But the privileges rest upon the same principle, so that there is surely a strong presumption against the withdrawal of patent rights, even when the individual is working in an organized group. A privilege that is sound in principle should not be withdrawn because it may be abused. Furthermore, substitutions limit the development of monopoly power based on patents.

The author recognizes, however, that any restriction of corporate ownership of patents would require positive legislation, and he feels that new legislation is not likely. Relief from present evils of the patent system must be sought in judicial decision. Much has already been accomplished, and the limit of achievement has not yet been reached.

ABBOTT PAYSON USHER, *Harvard University*

Monopoly in America: The Government as Promoter. By Walter Adams and Horace M. Gray, with an introduction by Senator Paul H. Douglas. New York: The Macmillan Company, 1955. Pp. xv, 221. $2.75.

The authors have not only the typical concern of economists over the growing acquiescence of the American public in concentration of economic power, but are deeply disturbed that the Federal government has not only abdicated its role as champion of competition but has itself become a powerful promoter of monopoly.

Walter Adams and Horace M. Gray are not unsympathetic to government and regulatory agencies in their difficulties in dealing with the problem of concentration. A public, exhausted by the burdens of depression and war, and enjoying prosperity, had grown tired of facing issues. It tolerated bigness, even endowed it with many virtues, and accepted the notion that the new technology demanded that enterprises should, and inexorably would, be huge. Thus there was an inevitability of concentration; and, as with the nineteenth-century Malthusian law, there was a "rationalizing the inevitable"—nothing could be done about it. Yet an optimistic note was struck: monopoly was voluntarily or involuntarily self-limiting; for the market forces were strong, and the great corporations had accepted a new social responsibility. The government thus lacked popular support in resisting monopoly. But, the authors believe, the government permitted erosion of its powers by monopoly forces; it failed to construct a farsighted, consistent policy; it did not learn the lessons of past mistakes.

In a background chapter, the Crown in Elizabethan England is shown creating monopolies as instruments for developing the economy. The Federal government, too, has its chosen instruments for promoting the public welfare; but the monopolists were not supposed to take over some of the functions of government as they were in Elizabeth's day. Yet, grants of privilege to chosen companies, allocation, at first, of choicest routes or channels to the few airline companies or television networks entrenched these few; and the regulatory bodies strengthened them, alienating the public domain beyond recapture by the state. Defense contracts inflated the power of the top few companies; plants built by the

government during the war were sold mainly to their wartime operators. And even when Congress laid down competitive standards it was defeated in the process of administration. Operators of atomic energy plants acquired knowledge at government expense, foreshadowing monopoly. Tax credits for depletion, accelerated amortization, accorded subsidies from the taxpayer to the large corporations. Tax policy became, often unconsciously, a means for undoing antitrust achievements. Concentration of economic power rising from these practices is thus of the government's own making.

Mr. Adams and Mr. Gray do not believe that the drift toward monopoly is inevitable. Economic concentration is not inherent in our society; it is not the result of natural, spontaneous growth from below in response to the new technology or the peculiar demands of our economic system; rather, it is a factitious phenomenon, largely the outcome of forces from above—the policies and actions of the government.

The government should cease granting privileges that confer advantage upon big business; monopoly, deprived of government support, would then prove weak. The authors take a vigorous stand for competition. Government should use its powers to maximize it. And though only a limited competition will be attainable, its natural vigor will be great. Of wider significance: competition has historical values of its own; it is a part of a social philosophy and basic to the preservation of a free society. Monopoly is destructive of all the freedoms.

The greatest promotion of monopoly occurs when government legalizes private monopoly of public utilities and alienates the public domain. And when it seeks to recapture its powers it is blocked by economic, legal, and political powers of the giants it creates, or by weak, shortsighted, submissive regulatory commissions.

The interesting proposal of the authors is that the present scheme of regulation be abandoned in the field of public utilities, and that they be left to the forces of the free market, subject to regulation and enforcement to insure safety, adequate services, and competition. Public ways—roads, airways, waterways—are free; and public investment for their development will be necessary to achieve fullest freedom of opportunity. Railroads would suffer but temporarily.

This is a small book, but it is solid, closely yet attractively written. While it is not highly technical, the book is not a simple, usable tract for interested parties. By bringing together in close relationship the major facts that explain the chief means by which government has given birth to monopolies and nourished them, the authors have produced a fresh, interesting, and impressive study, and provided a valuable approach to public policy. Their philosophy is abundantly clear, and their suggestions for implementing it are not unreasonable.

Government has fostered monopoly (the concentration of substantial economic power) when, for example, it granted antitrust immunity to shipping or to the international oil cartel; when it permitted itself and its agencies to be defied by economic power; when legislation granted special privileges to some that were withheld from others. These, it would appear, have their parallel in the field of organized labor. Could not labor have been brought within the general philosophy of the book—concentrated private power and the public interest?

H. F. R. Shaw, *Dartmouth College*

The British West Indies. By W. L. Burn. London: Hutchinson's University Library, 1951. Pp. 196.

Although no longer a recent publication, W. L. Burn's survey of the British West Indies is worthy of notice as one of the best of Hutchinson's series of short histories. To cover more than three centuries in the history of a dozen or so political units in less than two hundred pages is not an easy assignment, but Professor Burn has produced a book that is easily the best single-volume history of the British West Indies yet to appear. He has accomplished this task largely through emphasis on social and economic history, giving the main outlines of his subject and the "feel" of the West Indies without attempting to catalogue too many political events.

The deficiencies of the work are mainly those of the authorities on which it must necessarily be based. The eighteenth century and the nineteenth up to emancipation are better understood and treated than the later period. From 1865 to the later 1930's, on the other hand, there is a great lack of authoritative secondary works even for the outlines of political history, to say nothing of important social and economic developments. If Professor Burn's treatment of this period is thin, it is much less thin than might have been expected.

New work, some of which is now in progress, can therefore be expected to change some of the author's interpretations of West Indian history. I have already noted my disagreement with his views on the result of free trade in sugar in the mid-nineteenth century (see "The British Sugar Duties and West Indian Prosperity," THE JOURNAL OF ECONOMIC HISTORY, XIV, No. 2 [Spring 1954], 157–64). There is also doubt whether the malleability of these small societies in the hands of their English governors will prove in the long run to have been as great as Professor Burn believes. These matters, however, are small in comparison with the essential quality and usefulness of the work.

P. D. CURTIN, *Swarthmore College*

Two Postwar Recoveries of the German Economy. By Horst Mendershausen. (Contributions to Economic Analysis, VIII. Edited by J. Tinbergen, P. J. Verdoorn and H. J. Witteveen.) Amsterdam: North-Holland Publishing Company, 1955. Pp. x, 130. $4.00.

This admirable comparative study both describes and accounts for the most significant similarities and differences between the two postwar economic recoveries (1919–1928 and 1946–1953) that Germany has experienced in this century. Without pretending to be exhaustive, it is a comprehensive, well-proportioned, and lucidly written survey which will certainly be of substantial value to nonspecialists as well as to persons engaged in more advanced research. Dr. Mendershausen's conclusions are definite and sometimes provocative, without being dogmatic or unreasonable, and his study presents a number of insights and suggestions that should, as he hopes, lead to fruitful further inquiry. His study is principally concerned with an analysis of economic structures and variables, but it preserves a remarkably fine balance between quantitative measurement and attention to political and cultural "imponderables."

The book attempts mainly to explain why the second "rise of the Phoenix

from its ashes" has been so much more impressive than the first, despite the less favorable material conditions under which Germany began its recovery after World War II. In trying to account for the astonishing recuperative power of the German economy, Dr. Mendershausen properly stresses the vitality and adaptability of the population, its previous experience with rapid economic change, and its disciplined willingness to accept heavy temporary sacrifices in order to make good its losses as quickly as possible. Thanks to these qualities and attitudes the Germans found in their physical calamity "not only a fact to be overcome, . . . [but] a stimulus to action" (p. 120). While this was true after both world wars, it was particularly striking in the second period, when destruction and loss of resources were much greater.

Yet there was a limit to what the Germans could do by their own efforts. And Mendershausen shows that external causes—chiefly political—have powerfully affected the outcome of Germany's two recent attempts to restore her ravaged economy. He believes that these outside influences were much more conducive to rapid, sound recovery in the second of the two periods. In contrast with the negative or passive attitude of Germany's former enemies during most of the Weimar period, the victors of World War II assumed active responsibility for Germany's recovery and for her gradual reintegration into the world economy in a way that did not expose the international market system to insurmountable adjustment problems. "The functions of victor, governor, and distributor of aid were fully combined in the 1940's; in the 1920's they were widely separated" (p. 121). Not only did post-1946 Germany receive outside aid much earlier and on a much larger scale than the Weimar Republic; its balance of payments was subjected to much lighter burdens. Productivity rose faster and further because a larger volume of capital investment was possible.

Thus the second recovery was aided by the fact that the victors of 1946 had learned something from the experience of the 1920's. But political conditions were vastly different too, as Dr. Mendershausen is careful to point out, and the management of economic recovery closely reflected the internal and external political circumstances of the two postwar periods. He concludes that the Weimar attempt to find economic readjustment "under a democratic but impotent national government" was less successful than the authoritarian "war-economy methods" adopted by the occupying powers or the "social market economy" developed by the Federal Republic. He believes that the second sequence of policies, "despite its many unfortunate traits, was more conducive to a systematic and undisrupted reorganization of the stricken economy, as well as to the achievement of a sounder system of public and market economy," than was the earlier "stubborn attempt to fit a greatly changed reality into a 'normal' (prewar) pattern" (p. 121). Not everyone will fully agree with this interpretation, but it is surely a hypothesis that deserves further exploration and discussion.

Dr. Mendershausen's evaluations of many specific aspects of the recovery process are equally suggestive. He makes especially cogent comments on investment, productivity, cartels, labor relations, income redistribution, economic incentives, monetary reform, and foreign trade. These cannot be discussed in a review of this length, but particular attention should be drawn to his analysis (pp. 115–18) of Germany's continuing "external capital shortage," for this may

turn out to be the key problem of the future. Its importance arises from the fact that during the 1946–1953 recovery "the German economy came to be focussed even more decidedly on the production of investment goods" (p. 122). This has meant increased dependence not only on rising domestic consumption and investment but also—and even more critically—on the existence of a steadily increasing demand for capital goods in underdeveloped areas. Since Germany can expect to have little surplus capital over and above her domestic needs, she will be unable to extend the large volume of credit necessary to make this demand effective. Hence there must either be a large direct flow of purchasing power to these underdeveloped areas from the United States and other Western countries, or Germany must become the intermediary for an equivalent indirect flow of capital funds from the same sources to the same destinations. In the second eventuality, Germany will have to play the dual role of "model debtor" and "imaginative creditor." And unless this problem of external capital shortage is solved by one or both of these methods, "the structure of the German economy may prove incompatible with the structure of its markets, its growth incompatible with its internal balance, and its performance as a good international debtor may come in conflict with its need to act as an international creditor" (p. 128).

RALPH H. BOWEN, *Columbia University*

L'Espagne éclairée de la seconde moitié du XVIII[e] *siècle.* By Jean Sarrailh. Paris: Librairie C. Klincksieck, 1954. Pp. vi, 779. 2,900 francs.

The Spanish Enlightenment has received much previous attention but never the encyclopedic treatment that Jean Sarrailh now provides. Although the French scholar's work moves somewhat slowly, displaying solid research rather than originality or brilliance, it is the best study ever made of the subject.

The Enlightenment in Spain was concerned mostly with economics, as Sarrailh makes clear. The two principal characters of the book are Spain's leading eighteenth-century economic reformers: Pedro Rodríguez, Count of Campomanes, and Gaspar Melchor de Jovellanos. Much space is also awarded François Cabarrús, who, though a Frenchman, settled in Madrid and preached the same economic doctrines. Rivaling them in importance were the societies of the *Amigos del País,* some progressive bishops, the more enlightened ministers of state, and Charles III himself.

Only a few thousand of the eight or nine million eighteenth-century Spaniards had any real interest in the reforms of the Enlightenment. Yet as Sarrailh progresses from province to province and surveys the work of progressive clubs and societies, it becomes hard not to imagine that Spain was teeming with advanced thinkers devoting most of their time to patriotic endeavor. The author does not deliberately create this illusion; elsewhere he lets us see that the reformers operated largely in a vacuum. Most peasants insisted on farming by out-of-date methods when better ones were known; most artisans resisted even those innovations whose efficacy was demonstrated before their eyes; and most landowners, whatever frothy affectations of progress they might introduce into their social life, preferred not to be bothered with reform.

In view of the condition of Spain in this century, the leaders of the En-

lightenment may be excused for frowning on all activity not of material value. It is no wonder that Jovellanos urged talented young men to compose agricultural and industrial treatises instead of translating Latin verse, or that he wished to reform university curricula by cutting out subjects not related to practical life.

The church does not fare badly in Sarrailh's account. While the Jesuits come in for severe criticism—Sarrailh takes issue at length with Marcelino Menéndez y Pelayo, a recent Spanish champion of the Society—other orders and many of the secular clergy are revealed as conscientious champions of reform.

The efforts of the Spanish proponents of the Enlightenment were not necessarily doomed to failure. The death of the intelligent Charles III and the accession of the incompetent Charles IV in 1788 was a blow, though not a fatal one, to their hopes. Even under the latter king, whose much-maligned minister Godoy was not altogether bad, advances were being made, and the Enlightenment showed signs at long last of spreading to a wider public. It was in the cannon smoke of the Napoleonic invasion and the resulting Peninsular War that the efforts at reform finally vanished.

Although Sarrailh's title appears to limit him to the second half of the eighteenth century, he frequently delves into the first half in order to trace reform movements to their origin. It is unfortunate, however, that he fails to discuss the projected reforms of Cardinal Giulio Alberoni during the years 1715–1719, which, if carried out, might have hastened the Spanish Enlightenment by decades.

In Sarrailh's bibliography of 530 items, the omission of as important a work as Jaime Carrera Pujal's five-volume *Historia de la economía española* is astonishing.

CHARLES E. NOWELL, *University of Illinois*

The Struggle for the Indian Stream Territory. By Roger Hamilton Brown. Cleveland: Western Reserve University Press, 1955. Pp. x, 104. $3.00.

This is an account of one episode in the expansion of the American nation. The Indian Stream territory was a small piece of land in northwest New Hampshire which was in dispute between the United States and Canada until the Webster-Ashburton treaty confirmed the American claim. By that time the area had experienced over forty years of ferment which at times had erupted into violence and created international concern. Directly behind the overt events lay the cupidity of land speculators who had based their hopes of gain upon wholly illegal claims, but further in the background was the land hunger of the individual settler accompanied by an often unvoiced demand for equal justice. This story is competently but impersonally told in terms of the records of the land companies and the governments involved.

BROOKE HINDLE, *New York University*

Water for the Cities: A History of the Urban Water Supply Problem in the United States. By Nelson Manfred Blake. (Maxwell School Series—III.) Syracuse: Syracuse University Press, 1956. Pp. viii, 341. $4.00.

The present water crisis in American cities gives a particular relevance to

this historical study of the origins of our municipal water systems. Indeed, contemporaries will find some comfort in the perspective that Mr. Blake brings to the problem, for he demonstrates that urbanites have seldom been satisfied with either the quality or the quantity of their water supply. And, furthermore, the frantic search for new sources is not peculiar to our times, but is as old as the question itself. If we are now using our water faster than nature can provide it, then that is new; but most of our other issues are very much like those which confronted town dwellers a century ago.

The subtitle of the volume, however, is a little misleading. This is not "A History of the Urban Water Supply Problem in the United States." Mr. Blake is far too wise to attempt anything so ambitious. It is, rather, an intensive examination of how the nation's leading cities established water systems and the controversies which swirled around them. More than three quarters of the book treats Philadelphia, New York, Boston, and Baltimore in the early nineteenth century; only the last two chapters deal with more recent developments. But what Mr. Blake does, he does well. He has used a wide variety of sources—public records, maps, manuscripts, and newspapers—and he embeds his story firmly in the intricate politics of state and municipal affairs.

Moreover, the author is careful to see the water issue in the context of related urban problems. The great demand for city-wide systems stemmed from difficulties along many fronts. Fires had become more costly almost yearly; many people connected the increase of disease with impure drinking water; and streets could no longer be cleaned adequately by old methods. As crises mounted around these questions, the argument for a regular water supply became irresistible. The cost of construction seemed less formidable when compared with the risk of continued neglect. Each new conflagration and each new epidemic brought added support for those seeking municipal action. Once Philadelphia took the lead, its rivals felt compelled to follow.

The decision to build, however, set off a new debate. Was the new system to be publicly or privately owned? Though the discussion in every town was lively, only New York experimented with private management. It was not a happy experience, and Mr. Blake, a friend of municipal ownership, delights in describing the inadequacies of the Manhattan Company. Philadelphia, on the other hand, pioneered in the publicly operated system and provided other places with a model. Both the older cities of the East and the younger ones in the West looked to the Fairmount works as the embodiment of civic efficiency and wisdom.

Scholars interested in the twentieth century will not find much material here. Nor will regional historians find detailed accounts of the construction of water systems in cities outside of the East. Current questions, of course, fall properly to a book of another kind. But Mr. Blake is to be thanked for breaking the back of an important historical problem, and if there is still much to do in this area of research, what he has done need not be done again. Moreover, he has set exacting standards for other workers in this field. The investigation is careful, the analysis clear, and the author invests his narrative with a liveliness not always found in books dealing with municipal affairs.

Richard C. Wade, *University of Rochester*

REGIONAL STUDIES

Every House a Frontier: Detroit's Economic Progress, 1815–1825. By Floyd Russell Dain. Detroit: Wayne University Press, 1956. Pp. vi, 168. $3.50.

In 1815, Detroit, the famed wilderness outpost, was in a retrospective mood. Looking backward, it could survey a 114-year history as a trading center and military post. It had prospered economically; it had enjoyed a strategic location militarily; and around it was an aura of romance, cast by travelers who, safe back home in the East, felt they had been to the rim of civilization.

With such a heritage, Detroit might well have anticipated a bright future in the expanding West. But the renascence of Detroit was for the future. When it bravely incorporated itself as a city in 1815, the outlook was bleak. Devastated by both British and American troops during the War of 1812, suffering in the aftermath of this war from a diminished population and disrupted economy, Detroit was in serious straits. It took ten years for the city to recover from its slump. Then, in 1825, it stood ready with the rest of the Great Lakes area to profit from the opening of the Erie Canal.

Mr. Dain focuses his study on the economic problems of the city during the ten perilous years when city leaders were stirring the ashes to see if there was yet life in Detroit. Although this study is slight, quantitatively, it is one that students of Michigan history cannot ignore. Better than anyone else to date, the author has examined the roots of Detroit's economy. He deals with the development of transportation by water and land; with commerce and industry; with currency and exchange, and with the relations of the young city with the hinterland. At the close of this period, Detroit was a "vigorous American community" in the pathway to southern Michigan and northern Ohio, a depot for the steamboats and sailing vessels bringing from the East immigrants and supplies and carrying back the produce of the hinterland.

The difficulties the author encountered in dealing with these subjects for so limited a period are manifest. To make the position of Detroit meaningful, Mr. Dain has had to discuss in considerable detail such large subjects as the development of navigation on the Great Lakes. In describing the hinterland, for example, he first had to recount the steps in the settlement of southern Michigan. When the period closes, the hinterland is just beginning to take shape in relation to the urban center. The problem, essentially one of balance, could have been solved only by taking a larger chronological slice of Detroit history.

Every House a Frontier is a good start. The historians who undertake to write a broader sweep of Detroit history will be grateful to Mr. Dain for working through scattered sources and tying up so neatly the first ten years of corporate existence.

LUCILE M. KANE, *Minnesota Historical Society*

New Spain's Century of Depression. By Woodrow Borah. (Publications in Ibero-Americana, No. 35.) Berkeley and Los Angeles: University of California Press, 1951. Pp. vii, 58. $.75.

Woodrow Borah does not have to be introduced. His works are among the

most solid that have been published recently on the history of colonial Latin America; see, for example, his *Silk Raising in Colonial Mexico* (Berkeley, 1943) and *Early Colonial Trade and Navigation Between Mexico and Peru* (Berkeley, 1954), both in the same collection as the volume under consideration. The present study, a stimulating analysis of Mexico's long depression, is in some ways the most important of the lot. It goes beyond the interests of the specialist and represents a significant contribution to world history.

The book is a study of long-term change and reflects the growing concern of historians with this kind of problem; note, in the field of Ibero-American history alone, the recent works of Fernand Braudel, Vitorino Magalhães Godinho, and Pierre Vilar. It seems clear that, for the period before, say, 1850, the analysis of secular trends is much more profitable than that of short-term fluctuations, which are hard to define with precision because of the increasing lack of statistical evidence as one goes back in time. The difficulty in long-run historical analysis, however, lies in providing, insofar as the documentation permits, a balanced, complete picture of change—it is only too easy to let the unevenness of the evidence lead to uneven description and injudicious explanation.

Woodrow Borah's book is an important addition to the literature of economic development. He has assembled a large, convincing body of evidence to show that the colonial economy of Mexico went, from 1576 to about 1700, through more than a century of depression. His findings are corroborated to a certain extent by the important study of François Chevalier, *La formation du grand domaine au Mexique; terre et société aux XVI^e^ et XVII^e^ siècles* (Paris: Université de Paris, Travaux et mémoires de l'Institut d'Ethnologie, tome LVI, 1952). This great depression in Mexico is further evidence of the existence as early as the sixteenth century of world-wide economic movements. The various European economies were experiencing a comparable decline after the euphoric expansion of a century that saw the limits of the world burst open. Mexico's tie to the European trend seems incontrovertible.

Of Mr. Borah's extremely condensed analysis, two aspects may be singled out for discussion: first, his explanation of this Mexican example of the world depression, which, on the whole, I find convincing; and second, his chronology, which seems to me to be open to discussion.

According to the author, the fundamental source of the more-than-century-long contraction of the economy of New Spain is to be found in demographic trends, those in particular of the native Indian population. On this point, Borah has simply had to call on the admirable study of Sherburne F. Cook and L. B. Simpson, *The Population of Central America in the Sixteenth Century* (Berkeley, 1948). Thanks to the astonishingly precocious thoroughness of the Spanish administration of the Indies, we can follow the population changes of the old *Mexica* plateau with a precision rarely possible for the Old World—Europe and China excepted. From a high point of 11,000,000 in 1519 (this seems high to me: we are sure of 6,400,000 to 6,500,000 in 1540), the number fell in stages to 1,500,000 by the second half of the seventeenth century—as far as 1,200,000 perhaps at the low point. It started back up again in the eighteenth, but was never again to reach, for pure Indians, the pre-Columbian peak.

Mr. Borah, taking into account the findings of Cook and Simpson, offers

a persuasive explanation of this catastrophic plunge. The primary cause was the severe impact of Spanish exploitation, with its unconscionable demand for labor. The feeble resignation of the subject Indian contrasted sharply with the demographic energy of the Spanish master, whose thriving numbers rose, according to Borah, from 57,000 in 1570, to 119,000 in 1646, to 780,000 by the end of the eighteenth century. Even if one takes into account the slow advance of the frontier of European colonization, the divergence of the two curves is only too obvious.

Mr. Borah is less convincing, however, when he deduces from the decline of the Indian population a parallel decline of the colonial economy. On this point, it may be noted, the documentation of the author is purely qualitative and literary, hence subjective; he has no continuous time series. On the other hand, it seems clear from our statistical research on the foreign trade of colonial Spanish America (See Huguette and Pierre Chaunu, *Séville et l'Atlantique,* 1504–1650 [3 vols. published, 3 vols. in press, 3 vols. forthcoming; Paris: A. Colin, 1955—]; also the article of P. Chaunu, "Le galion de Manille: grandeur et décadence d'une route de la soie," *Annales: économies, sociétés, civilisations*, VI [1951], 444–62) that while there is a retreat of the American economy—so far as its relations with the rest of the world are concerned—this retreat does not begin until 1608, and the gentle slope that ·ks the following years does not really pitch downward until 1619. Further evidence—the trade with the Philippines, for example—confirms that the watershed must be placed not in 1608, but at the later date, some forty years after the great epidemic of the Matlazahualt (1576–1579).

It would seem, therefore, that the link between the demographic prosperity of the Indian population and the economic prosperity of the colonial society—a link that no one will deny—is more complex than Borah thought. The effects of the crisis of the Matlazahualt were felt in a temporary drop in overseas trade; there was, then, an intercyclical recession. But for the moment, the colonial society reacted by simply increasing the burden imposed on the mass of subject natives. One can thus understand the lag of some forty years between what was perhaps one of the underlying causes of the difficulty and the difficulty itself.

On all other points, and in particular on the link between the population decline and such social trends as the extension of the large landholding and the institutionalization of peonage as a penalty for debt, one can only applaud Mr. Borah's original and suggestive analysis. Works of this quality are the seed of long and fruitful discussions.

PIERRE CHAUNU, *Paris*

A Merseyside Town in the Industrial Revolution: St. Helens, 1750–1900. By T. C. Barker and J. R. Harris. Liverpool: University of Liverpool Press, 1954. Pp. xviii, 508. 30*s*.

Since 1939 many historical studies of urban growth in the late eighteenth and nineteenth centuries have appeared in Britain. They may be divided into two categories. Some deal with the histories of individual towns and cities, with particular emphasis on the development of municipal government and local economic growth. Others deal with the general problems created by that change-

over from a predominantly agrarian to a predominantly urban and industrial economy, which was so significant a feature of the period 1750–1900. The book under review is an outstanding example in the first category. St. Helens is a nontypical South Lancashire town, in the sense that the cotton industry never took root there. It grew up at a crossroads in the heart of a coal field near the estuary of the river Mersey. Cheap coal and the easy access to Liverpool provided by the first British canal of the eighteenth century, the Sankey Navigation (1755–1757), fostered the rise of copper smelting and glassmaking in the last quarter of the eighteenth century. To St. Helens was brought much of the copper ore from the fabulous Parys Mountain in Anglesey, North Wales, and Messrs. Barker and Harris offer us the best available account of the activities of the "Copper King," Thomas Williams, M.P. (d. 1802), the great mining and smelting entrepreneur. It is noteworthy that, fifteen years after the collapse of copper smelting in St. Helens (1815), the industry enjoyed a local renaissance on the twin bases of cheap coal and foreign ore imported via Liverpool. In the 1830's and 1840's the alkali industry, also voracious in its appetite for coal, was successfully introduced into the district. Messrs. Barker and Harris have been fortunate in their hunt for business records and skillful in the use they have made of them. But their book is much more than a synthesis of local business histories. It is the story of the successful establishment of a new community during the heyday of Britain's period of world economic predominance. The most important aspects of that community's life—religion, local government and politics, transport, education, the relief of poverty, labor unionism, the retail co-operative and friendly society movements, and the problems resulting from the Irish immigration—are traced in a manner sufficiently detailed for the reader to gain a definite impression of the leading personalities of the town. For the student of American economic history there is fresh material about the export trade in handmade nails (much used in building log cabins and wooden ships) and about the rise of the plate-glass industry in the United States during the last quarter of the nineteenth century. The volume is intelligently illustrated, and there are four useful maps. It is to be hoped that aspiring historians of British towns will use it as a model.

W. H. Chaloner, *The University of Manchester*

A History of South-East Asia. By D. G. E. Hall. New York: St. Martin's Press, 1955. Pp. xvi, 807. $10.00.

Mr. Hall has accomplished a task which probably no other student of Southeast Asia is equipped to do. He has written a detailed general history of Southeast Asia in which his high standards of scholarship remain remarkably even, regardless of time or country. The result is a landmark in the field of Southeast Asian studies which belongs on the reference shelves of all students of the region, regardless of discipline.

Aside from a few notable exceptions, Americans have only recently discovered Southeast Asia and are inclined to think of the region in quite contemporary terms. We see the area as being composed of newly independent countries with youthful governments which are boldly struggling to bring to their peoples a more modern way of life. In our urgent quest for knowledge about tropical Asia we have tended to focus on current problems and to employ the newer

methods of the social sciences. Partly as a result of this, Americans often seem to look on Southeast Asia as though it lacked historical dimension, except insofar as it suffers from some of the negative effects of colonialism. Also, possibly because of our desire to disassociate ourselves from the past period of European rule, we have tended to overlook the fact that some European scholars have studied the region with great sympathy and sound scholarship. Indeed, many of these scholars, including Mr. Hall, have played a leading role in reconstructing the forgotten histories of the peoples of Southeast Asia.

Mr. Hall's approach is that of the classical historian. He is wary of generalizations and is only willing to theorize when a scarcity of data forces him to speculate. There is remarkably little formal analysis in his book, but readers who are concerned with more analytical problems will find a wealth of useful data in it.

Mr. Hall does, of course, have a point of view which he advances modestly and which gives a degree of form to his book. His treatment of a mass of historical details is guided by his belief that, in spite of all the external influences and conquests, the indigenous cultures of the region have had a greater historical significance than even most educated Southeast Asians realize. As a result, in treating the pre-European period he stresses the limits to which the area was either "Hinduized" or "Sinofied" without at the same time minimizing the importance of Indian and Chinese influences. And, rather surprisingly, in his discussion of the period of European domination, Mr. Hall practically ignores the phase of direct colonial administration and instead focuses largely on, first, the early process of European penetration and, then, on the growth of Southeast Asian nationalism, which he dates from the beginning of the twentieth century. The emphasis throughout the book is, therefore, on the peoples of Southeast Asia, especially on their leaders, and on how they sought to cope with outside influences.

It is in his handling of the pre-European period that Mr. Hall makes his most original contributions. Relying heavily upon Chinese dynastic histories and archaeological remains, he brings to life again the early kingdoms of the region. The picture is mainly one of the political sphere and of court life, since he has little evidence as to the character of other aspects of society. This emphasis continues into more recent times, so that the entire volume is essentially a political history that centers on the actions of individual men. The entry of the Europeans on the scene becomes a fascinating drama, in which the personalities of the actors stand out more clearly than the general social and economic developments. It is only when Mr. Hall takes up the most recent period that his treatment, of necessity in such a long volume, becomes rather thin.

Possibly few readers will have either the time or patience to read this volume from cover to cover, but many students of Southeast Asia are likely to find that on dipping into it for reference purposes they cannot easily put it down again.

LUCIAN W. PYE, *Massachusetts Institute of Technology*

Virginia at Mid-Century. By Jean Gottmann. New York: Henry Holt and Company, 1955. Pp. vii, 584. $7.50.

Writers on Virginia from early colonial times to the present have described

the great diversity that exists in that political region—a geographical, economic, and cultural diversity culminating in the separation, during the Civil War, of the western regions of the state. Any accurate and adequate account of Virginia will necessarily treat these various regions separately and in some detail, as Jefferson did in his famous *Notes on Virginia,* published in 1782. Yet laid over this diversity is a political and ideological unity reflected in a reluctance to accept "progress," the persistence of agrarian values and customs, suspicion of outsiders, and permissiveness by the electorate of a tight, ultraconservative political machine that in more progressive states might seem too unconcerned with the welfare of the majority of the people. While he makes no great issue of it, there emerges from the pages of Mr. Gottmann's book a clear awareness of this seeming contradiction between unity and diversity that provides one of the persistent and fascinating themes of Virginia history and, indeed, of Southern history.

Understandably, Mr. Gottmann writes in the shadow of Jefferson's *Notes on Virginia,* makes frequent allusions to it, and quotes rather extensively from it. Hence a comparison of the conditions under which each man wrote might clarify what, in the opinion of this reviewer, must be the chief criticism of this book. Jefferson wrote in answer to inquiries on Virginia by a Frenchman, the Marquis de Barbé-Marbois, and from extensive notes taken over a period of years during which he had been educated and served as civil servant. Mr. Gottmann, a French geographer of note and a member of the Institute for Advanced Study, was commissioned by Paul Mellon, president of the Old Dominion Foundation, to do the present study. Mr. Gottmann's research, including eighteen months of field work and visits to every county and city in the state, has been fruitful; but the effort of a specialist to combine geography, economics, demography, sociology, and a little politics leads to some regrettable redundancy and unevenness.

A feeling for the history of a region would seem to be particularly important in a study of contemporary Virginia. Mr. Gottmann certainly has this sense of the importance of Virginia's history, and he is continually putting his material into its proper historical setting. While this enhances the value of the book, it is the opinion of this reviewer that the separate section in which the author summarizes the history of the state is unnecessary and rather unconnected with the body of the work.

In his discussions of the physical features of the state, the forests and their use, the practices in Virginia agriculture, the mining and the manufacturing of the state, Mr. Gottmann comes into his own. Here he has combined, interestingly and informatively, his research in the documents of the state government, his use of secondary materials, and his firsthand observations. The chapter on the "Resources of the Underground," showing the place of Virginia in the production of coal, the effects of recent decreased use of coal, the nature of the industry in Virginia—size of the mines, labor relations, etc.—is one of the best in the book. Here, as well as in the discussion of the rayon industry, one sees some of the peculiar manifestations of the industrial revolution in the South. While industry has come to Virginia, we are reminded that Virginia is not an industrial state.

The extension of the megalopolis of the Atlantic seaboard into Virginia is a factor of great significance and one that might have the greatest final effect

in changing the old patterns in Virginia. In at least two places in the book this development is treated and emphasized. Had the book been published a few months later than it was, the author might have taken note of the difference in approach to the integration question in Washington suburbia and other areas of the state.

Virginia at Mid-Century is an ambitious title, and one ought to be lenient in judging the extent to which the title has been justified. Even so, the role of the Negro in Virginia at the present time—particularly the integration question—would seem to warrant more space and emphasis than it has been given. We are told of the tendency of the Negro to migrate out of the state while more white people migrate in, and a page or so is devoted to the integration problem. But this is relegated to the back of the book as though it were an afterthought which could not be entirely omitted. The author's very awareness of the importance of the Supreme Court's decision of May 1954 leaves him open to criticism for not doing more with it. The same is true of the structure and operation of politics in Virginia; after a few words on this topic we are referred to V. O. Key's excellent study, *Southern Politics,* and left to flounder there. Since Key's study was published in 1950, there might well be additional material of importance that could have been included. This difficulty might have been taken care of very successfully by a slight limitation of the author's goals and by a less ambitious title.

In spite of the criticism above, *Virginia at Mid-Century* is a very useful and informative book. It is not the sort of study that many people will read through at one sitting, but it is an excellent contribution to the literature of an important state and promises to be helpful to researchers and teachers alike.

The book is replete with charts and graphs which are frequently helpful in a study where statistics are as plentiful as they are in this one. Lacking, however, is a good over-all map of Virginia showing counties, towns and cities, main roads, and outstanding physical features; certainly the map on the inside of the front cover does not fulfill the need.

PATRICK W. RIDDLEBERGER, *University of Maryland*

The Whoop-Up Country: The Canadian-American West, 1865–1885. By Paul F. Sharp. Minneapolis: University of Minneapolis Press, 1955. Pp. xiii, 347. $5.00.

Twenty-five years ago Herbert E. Bolton and Bartlet Brebner independently urged historians to transcend national boundaries and study as units the history of North America and its international regions. Few scholars have responded to the plea. A conspicuous exception is Paul F. Sharp whose training and research qualify him to understand and compare Canadian and American experiences in occupying the Western plains. In an earlier book Mr. Sharp studied Canadian parallels to agrarian unrest in the United States. In *The Whoop-Up Country* he traces social and economic developments in the region comprising Montana, southern Alberta, and southwestern Saskatchewan from 1865 to 1885. With expert understanding of the diverse ecological factors, he lays a groundwork for his study by describing the geographic unity of the area and the type of physical environment.

In the twenty years after the Civil War the advantages of water transportation

made the Whoop-Up country tributary to the Missouri River metropolis of Fort Benton. From that point wagon trade radiated out in all directions; the trail to Fort Macleod, a hundred miles north of the border, gave the region its name. Until the coming of the Canadian Pacific and Northern Pacific railroads destroyed its strategic position, Fort Benton was commercial entrepot and financial center for traders, miners, farmers, stockmen, and the two national governments.

In the analysis of Fort Benton enterprise economic historians will find the most rewarding portion of the book. Using the business records of the principal merchants, the author describes their attitudes as well as their achievements. He finds that while they were typically Western in the diversity of their investments and the chronic shortage of capital, their concept of entrepreneurship resembled that of the Eastern businessman more than that of the frontier storekeeper. They came from the East and brought with them a good education and the prevailing commercial standards. As purveyors to two national governments they had a big stake in the volume of public spending, and they took appropriate action to determine public policy in Canada and the United States. On every issue except the fatal extension of railroads they made their voices heard in Washington and Ottawa.

Mr. Sharp has an eye for a good story and tells it well. The chapters on law enforcement, life on the trail, and Indian affairs abound in dramatic and colorful incident. The author pauses occasionally to offer some generalized insight, but, to the reader's despair, soon moves on to another good tale. Rather than attempt a systematic analysis of public and business administration, he uses specific historical incidents to illustrate the course of developments.

In his search for evidence the author has explored public records in Ottawa and Washington as well as local newspapers, business papers, and other manuscripts in the West. It is regrettable that the exact scope of his investigation is not shown by the inclusion of a bibliography.

THOMAS LEDUC, *Oberlin College*

La ville et la campagne au XVII^e siècle: étude sur les populations du pays dijonnais. By Gaston Roupnel. (Publication of the VI^e Section, Bibliothèque générale de l'Ecole pratique des Hautes Etudes.) Paris: Librairie Armand Colin, 1955. Pp. xxxi, 357. 1,200 francs.

Known to a fortunate few since its first edition in 1922, Gaston Roupnel's *La ville et la campagne* appears now in a second edition, substantially the same as the first. A work of love, an aesthetic creation, it is nonetheless a work of science and erudition—a reminder and rejoinder to those yet too young, and those others always too young, who pretend that a work of art cannot be a work of science, nor a work of science a work of art.

We have here the social history of Burgundy in the seventeenth century, but we do not deal with local history in the ordinary sense. Roupnel's is a work that the specialist—except the specialist on seventeenth-century France—may neglect, but he will neglect it at his own peril, for it is a resurrection of an epoch, brilliantly illuminating the crucial roles of the bourgeoisie, nobility, and peasantry, the development of sharecropping and commercial farming, the re-

organization of the crafts, the effects of war, banditry, disease, famine, and climatic perturbations, and the course of the seignorial reaction of the seventeenth century, the last all too often wrongly restricted to east-Elbian and trans-Danubian Europe.

In the two decades following 1636—decades of French participation in the Thirty Years' War and of the Fronde—impetuous Lotharingians, Comtois, Swedes, Imperials, and "Croates" in quest of booty ruthlessly engaged in irregular or partisan operations that transformed the plainlands of Burgundy into an immense and forbidding wasteland. Local and foreign bandits, frequently led by burghers, notables, and members of the "liberal" professions, as well as adventurers, divided the territory of Burgundy into several spheres of influence. Within these, the villages were charged with the payment of tribute to a designated band. In return for this "protection money," they were absolved from further harassment and pillaging, if they were lucky. Some villages chose to resist, but many seigneurs—the new landholding bourgeoisie and nobility we assume, although we cannot be certain—were opposed to such a policy, preferring to buy a "sauvegarde perpétuelle" for their villages. Such prudence was all the more advantageous from their point of view in that it brought refugee peasants from destroyed or threatened villages to their domains and assured them a labor supply in a time of great labor scarcity. Seigneurs were thus sometimes not reluctant to release captive bandits, explaining their actions as gestures of "courtoisie." To the peasants and their *curés,* however, such acts were examples of "lascheté" or "trahison." The story of banditry and the role of the nobility—but what nobility, the old or the new?—in the sixteenth and seventeenth centuries still remains to be written. But Gaston Roupnel and Fernand Braudel, the first for Burgundy and the second for the Mediterranean, have provided us with an appreciable introduction to the postmedieval history of brigandage that should make a closer investigation of this subject a most promising endeavor—again provided the investigator is a man of imagination as well as a man of science. Let others beware!

The primary victim of the disasters of the mid-seventeenth century was the village, and especially the village of the plain. Some villages were completely destroyed; others were greatly depopulated. But how, in fact, can we define the village of that time? A good definition of any human agglomeration should take into consideration the functional distribution of the population. In the village of the Burgundian plain, no more than 20 or 25 per cent of the heads of families were engaged in agriculture. There were large numbers of day laborers and "nouveaux pauvres," or beggars born of the misery of the times. About 30 per cent of the peasantry was made up of widows and unmarried women—unmarried because there were so few men. The rest of the village-dwellers were rural artisans, with the trade of the tavernkeeper the most prevalent. In some places there were as many taverns as there were cultivators or plows. The village also had its postmaster, schoolmaster, host or innkeeper, seignorial "farmer," *curé,* surgeon, and notary, whose employ was the most respectable of all. In many places artisans were more numerous than plowmen. Mercers and grocers, however, were largely absent from the village, and the presence of a mercer or grocer may be a sign that a village is no longer a village but a town.

We may thus arrive at a useful distinction between village and town. A town is essentially a center of commerce having not only many artisans but also merchants and shopkeepers in large numbers. The town or *bourgade* of the seventeenth century also had a bailiff, a judge's lieutenant, a sub-procurator, a registrar, a notary, a provost, a seignorial mayor, several criers, a number of tax and excise officials, and perhaps several other functionaries. The difference between the Burgundian village and town was not essentially one of numbers but of occupations: in the town both commercial and political or administrative activities were present, whereas they were far less significant or absent in the village.

And then there was the *city:* Dijon. Wherein was it different from a town? Here you have the criterion of size. Dijon had the greatest population in the province, and it had this because it had the greatest concentration of political officers, administrators, and their agents and servants. In 1699 Dijon counted a population of 4,331 hearths. Out of a total population of some 22,000 persons, 993 exercised various civil or military functions and 350 were the widows of functionaries. Thus more than 1,300 heads of families, numbering with their families and servants about 6,000 to 8,000 persons, or about 30 per cent of the population of the city, lived at least in part from their functions or titles. There were in addition several hundred notaries, advocates, and procurators, numbering perhaps 1,000 persons with their families. There were also 500 soldiers, 100 *gentilshommes,* and 889 priests, monks, and nuns, who were responsible for the care of 1,000 poor and orphans and employed an unspecified number of servants. There were, finally, 36 public scribes and schoolteachers and 174 persons engaged in the liberal professions (doctors, surgeons or barbers, apothecaries, lawyers, men of finance, and booksellers). Even without the teachers and liberal professions, the elements listed above constituted a population of some 10,000 persons, or more than two fifths of the total population of Dijon. Here are data that a Colin Clark interested in pre-nineteenth-century history could use with relish.

On the other hand, Dijon did not have more than 1,600 to 1,800 persons engaged in commerce and the handicrafts, or perhaps less than 40 per cent of the total adult employed population. Nearly 550 families were engaged in rural and semirural occupations. Size is the most easily observable criterion that differentiates the town from the city, but in the seventeenth century it was not the total size but essentially the size of the bureaucracy, the number of holders of titles and offices—whether or not they performed necessary services—and of all other persons engaged in the performance of services, that distinguished the city from the town. The city was a political center to a much greater degree than the town. One of the all-too-many great misfortunes of the century was the extension of "fonctionnarisme," or bureaucratism, not only to the city but also to the town and even to the village. It should therefore hardly come as a surprise to learn that the economy gravely suffered as a result of the undue weight placed upon service and administration at the expense of productive enterprise.

And who were the functionaries and holders of titles? The bourgeoisie, some of whose members had been ennobled. The bourgeoisie in the seventeenth century was made up of at least as many and probably more officeholders than merchants and master craftsmen. But before they became an officeholding bour-

geoisie and nobility, burghers achieved recognition through the acquisition of lands and fiefs. The bourgeoisie was a seignorial bourgeoisie with a territorial fortune before becoming an officeholding bourgeoisie, allied to the nobility, with an administrative fortune. Between 1550 and 1665, a time of great social mobility, the bourgeoisie acquired much of the land of the old nobility and the commons and communal properties of many villages, as well as the holdings of individual peasants. Enterprising burghers succeeded in their ventures by undervaluing the properties that served their peasant and noble borrowers as collateral, by creating fictitious debts, and sometimes by resorting to force and threats.

With its acquisition of extensive rural properties, the bourgeoisie created new servitudes. Contractual and temporary dues were transformed into customary and perpetual obligations. The real dues of the peasantry were augmented; the personal dues were retained. The new seigneurs simultaneously attempted to establish jurisdictional authority over the peasant and substituted dues in kind, including seignorial *corvées,* for the money dues that had been widely adopted at the end of medieval times. Obstacles were put in the way of social mobility; by the end of the seventeenth century society was rigidly stratified. The nobility was virtually transformed into a caste. Access to the ranks of the unennobled bourgeoisie from the peasantry and minor crafts was still possible but increasingly difficult.

The new seigneurs, the "Junker" nobility of Burgundy, transformed their rural possessions after 1650 into compact domains known as *rentes* or *granges,* very similar to the *folvark* of Poland and the Ukraine or the *čiftlik* of the Ottoman Empire. This new type of manor, whether an agricultural exploitation attached to a village or, as was more customary, an isolated domain in the country, normally possessed two or more plows and a large number of cattle or draft animals. The peasant, on the other hand, had lost his cattle as he had his land and meadows to aggressive bourgeois proprietors and became increasingly dependent on *rentes* of this kind. In this manner he was transformed into a *métayer,* dependent on the capital of the possessor of a *rente* for his continued livelihood. In the eighteenth century, as *métayage* and indirect agricultural exploitation slowly gave way to commercial farming and direct agricultural exploitation, the peasant became a day laborer or hired worker.

The French economic historian, C. E. Labrousse, contends that urban civilization is a "civilization of conquest." Roupnel has illustrated this in his own eloquent way in a book that is not only for the specialist but for every historian, economist, and sociologist who is not afraid of imagination and brilliance.

TRAIAN STOIANOVICH, *Rutgers University*

MISCELLANEOUS

The Power Elite. By C. Wright Mills. New York: Oxford University Press, 1956. Pp. 423. $6.00.

C. Wright Mills can always be depended on to write an interesting and pro-

vocative book. His latest volume defines the power elite as those who make decisions of national consequence. They include the "corporate rich," who are a kind of blend of the "very rich" and the chief executives of big business corporations; the important political heads, primarily the "fifty-odd men" at the top of the executive branch of the national government; and the top military leaders. None of the labor leaders, to whom the author referred in his 1948 study as the "new men of power," are included. Mills explains that while some labor leaders were members of the power elite in Roosevelt's administration, beginning with Truman's Fair Deal no labor leader can expect to be a member of the power elite (p. 263).

The path to power appears to be control over great wealth, preferably through direct ownership although family and social connections may suffice. And the author contends that the business, political, and military groups which wield great power are to an increasing degree interrelated. They are a closely knit group, and one which is not in touch with or responsive to the will of the majority. Rather, they and their supporters tend to shape the will of the masses. "The top of modern American society is increasingly unified, . . . the middle does not link the bottom with the top. The bottom of this society is politically fragmented, and . . . increasingly powerless" (p. 324). Congress, which might be expected to represent local interests, Mills relegates to the "middle levels of power" (p. 290).

While the author recognizes that the New Deal created competing centers of power, both in government and in the business world, he maintains that this did not reverse the trend (p. 272). In fact, throughout his discussion he appears to assume that the Eisenhower administration is the logical projection of the long-term trend, whereas the Roosevelt administration represents a temporary aberration from this trend.

There is, of course, much support for Mills' basic thesis. The sheer increase in population, the growing concentration of business in the hands of giant corporations, the increasing interdependence of different geographic areas, and the spread of mass media of communication—all contribute to the concentration of power which he describes. The advances in technology make it increasingly necessary to entrust important decisions to a few experts. But in the reviewer's judgment he has overstated his case.

To cite one illustration: he makes the point that important foreign policy positions are largely in the hands of the wealthy; and while he notes the increase in career diplomats under the Roosevelt administration, he discounts this partly as a temporary reversal of the trend and partly on the ground that the career diplomats themselves are recruited from the private preparatory schools and Ivy League colleges. He contrasts this with the presumably superior British recruitment of 76 per cent of their ambassadors from the Foreign Service. Whether these were initially from Eton and Harrow, Oxford and Cambridge, he does not say. However, by his own showing, 19 of the 25 top ambassadors appointed by Eisenhower—exactly 76 per cent—were career men. He discounts this by stating that only one of these 19 represents the United States in an important country, namely Bohlen in the USSR, and that he was educated at St. Paul's. Apparently India, where the representative is a career diplomat from Duke

University, is not classified as an important country; nor, for that matter, are the whole of the Middle East, Japan, and Southeast Asia. The statement suggests that Portugal is more important than Spain, and Canada more important than Mexico. Has the extension of the civil service really been inconsequential? Moreover, the tendency to appoint military men to top positions in government and business, which he notes in support of the increasing interrelation of the groups forming the power elite, is not new. It has been characteristic of every postwar period when a large crop of well-known and popular generals is available. And in stating that no national issues were clearly presented in the 1954 congressional campaigns, he appears to overlook the issue of natural resources. Also, is it true that no labor leaders are in a position to make "decisions of national consequence," particularly since the consolidation of the A.F. of L. and the C.I.O.? The author's main thesis would be more convincing, to the reviewer at least, if a little less had been claimed for it. It is still true, however, that no serious student of our contemporary society can afford to ignore this book.

MABEL NEWCOMER, *Vassar College*

Middle-Class Democracy and the Revolution in Massachusetts, 1691–1780. By Robert E. Brown. (Published for the American Historical Association by Cornell University Press.) Ithaca: Cornell University Press, 1955. Pp. 458. $6.00.

Mr. Brown's evident desire is to effect a revolution against the accepted views on the causes of the American Revolution. He is a crusader fighting a holy war to prove that the class society of the colonies in the eighteenth century was, so far as Massachusetts was concerned and, by overt implication, the twelve other colonies too, actually a democratic society such as historians have thought did not exist before the days of Andrew Jackson. The goal of British policy after 1763 was the throttling of colonial democracy, and as for the Revolution, "It was to be one of the unique revolutions in history—a revolution to preserve a democratic society, rather than to acquire one, a revolution to prevent change rather than to promote it."

Before demonstrating that democracy existed in colonial Massachusetts, Mr. Brown breaks lances with those who have held with the late Carl Becker that equally significant with the question of home rule was that of who was to rule at home. In other words, though he confines his study strictly to politics, the author rejects Becker's concept of an "internal revolution" to achieve greater human rights. The choice of Massachusetts to illustrate the flaws in Becker's thesis is, perhaps, unfortunate, because it is commonly understood that sectional and class issues were far less acute there than in the Carolinas, Pennsylvania, or New York—the colonies lending weight to such an interpretation. In describing the views of those whom he proposes to annihilate, Mr. Brown overstates and overstresses them to the extent that they bear little resemblance to the originals. And, not satisfied with this, driven by some inner compulsion, he slays on every third page in long footnotes all the living and several of the dead writers on the causes of the Revolution. Such a procedure, besides being unnecessary for his purpose and drawing the reader's attention away from the points the author is making, will inexorably court the animosity of those colleagues who have

hitherto wished him well, especially since he has so often distorted their writings to fit his thesis. Such pretentiousness and absence of good taste leave the impression that the author considers all other scholars in the field not merely stupid, but fools.

This unsavory feature is mentioned at length because it is to be feared that the fundamental contributions of the work may be passed by on account of the manner in which they are presented. In two articles, the author previously published the vital portions of this book: he presented data in the *New England Quarterly* (1952) to show that virtual manhood suffrage existed in Massachusetts before the Revolution; and in the *Mississippi Valley Historical Review* (1953) proved conclusively (what many had long known, to be sure) that the interior towns did not suffer from insufficient representation, and that the seaboard "aristocrats" could not have carried measures against the wishes of the rural representatives in the House. Thus, it is evident that some revision of our concepts about "democracy" in colonial Massachusetts is in order. The present volume incorporates these important challenges to older theories, but little else is added beyond an application of them to the familiar events of the revolutionary crisis in the province.

Because he has rigidly restricted himself to the matters of the franchise and representation, Mr. Brown has not asked certain very pertinent questions. How did this "democracy" work out in practice? How many people actually voted, and how were the votes managed? Who were the provincial political leaders, common Yankees or "gentry"? He has not attempted to employ the useful techniques of the historian of ideas, who would have pointed out that aristocratic notions linger in men's minds long after aristocratic institutions have decayed or even disappeared. Above all, he has neglected to inquire into just what a social class is; yet in the eighteenth century classes were based on *status,* which embraced a complex of attitudes as much or more than the facts of property and the right to vote. John Adams, whom Mr. Brown favors as an authority, certainly believed that the rule of the gentry had not been threatened until well into the War for Independence. In his proposed reinterpretation of the causes of the American Revolution, Mr. Brown is in step with a current fashion of historical writing which, in keeping with some present-day publicists, seeks to sublimate class as a factor in our past, to celebrate our institutions rather than to examine them critically. Yet, writing about 1818, John Adams categorically asserted of Massachusetts "that this country, like all others, has been a theatre for parties and feuds for near one hundred years."

Although it is a human failing to overstate a new thesis—and in this Mr. Brown is no exception—he has brought forward data on the franchise sufficient to cause historians to revise their belief in the classical Becker theory. Even for Massachusetts, however, additional study is called for; for the truth is that the seaboard gentry ruled the Bay State "with something like quarterdeck efficiency," down to the collapse of the "genteel tradition" in our own century. "Democracy" has social and cultural components as well as political ones. As for the other colonies, they too need investigation before the Becker theory is wholly discarded or even radically modified. Virginia had no internal revolution, no Tories to mention in 1775; yet who would dare to assert that the Old Dominion harbored a rampant democracy?

Based upon intensive research, this book, though not a major contribution to the understanding of the causes of the American Revolution, does pose a major question that may lead to a more complete understanding. One devoutly hopes it will get the hearing that it deserves.

CARL BRIDENBAUGH, *University of California, Berkeley*

L'esclavage dans l'Europe médiévale, Tome I: *Péninsule Ibérique-France.* By Charles Verlinden. (Rijksuniversiteit te Gent, Werken uitgegeven door de Faculteit van de Letteren en Wijsbegeerte, 119 Afleverung.) Bruges: De Tempel, 1955. Pp. 930.

This is the first of three volumes that are to cover the history of slavery in medieval Europe—east as well as west—down to the beginning of the sixteenth century. It is already apparent that this will be a complete and definitive study. Professor Verlinden has not only examined the extensive and widely scattered printed materials that deal with his subject; he has also searched the local and national archives of every European country. Future research may add detail here and there, but it is unlikely that it will change the broad outlines of the picture he has given us.

The most important result of Professor Verlinden's work is to force a sharp upward revision in our estimate of the importance of medieval slavery. It has long been known that slavery survived in the Mediterranean coastal region, while it disappeared in lands to the north. But Mediterranean slavery seemed to be largely domestic in character—a matter of a few permanent household servants in the homes of the wealthy—and hence of no great economic significance. Professor Verlinden has shown that, although this view is true of Provence and Languedoc, it does not apply to the Spanish kingdoms. Thanks to the fact that the government of Catalonia attempted for a while to insure owners against the flight of their slaves, we have registers of slaves for this region for the early part of the fifteenth century. The records are incomplete, but it is clear that there were at least 4,375 slaves in Catalonia at this time, and probably this figure is much too low. There are no figures for Majorca, but the extremely severe legislation regulating the conduct of slaves in the Balearic Islands suggests that slaves formed a large part of the population there. Catalonia and Majorca obtained most of their slaves from piratical sea captains, or from Spanish and Italian merchants who bought captives in the Levant. Castile had, in addition to prisoners from these sources, those taken in the unending war with the Moors, so that slaves must have been numerous in the southern part of the kingdom. Altogether, slaves must have formed an appreciable part of the labor force in the Spanish peninsula.

There was a prejudice against enslaving Latin-Christians; otherwise, any captive taken in war, raids, or piracy might end as a slave. In the earlier Middle Ages the typical slave in Spain was a Moor, but in the fourteenth and fifteenth centuries Greeks, Russians, Mongols, and Circassians became fairly common. A few Negroes appeared in the twelfth century, but the great influx of Negro slaves came only in the fifteenth century as a result of the Portuguese advance down the coast of Africa.

Unfortunately, the slave usually appears in the records when his status is

being changed: when he is being sold, or recaptured after flight, or manumitted. We have little information about his economic activity or productivity. Slaves were used as agricultural laborers only in a few places. More often they seem to have been employed in industry; even small artisans in Catalonia had slave workmen. Owners sometimes rented their slaves to third parties, which suggests that slave labor was not impossibly inefficient. And the fact that merchants as important as the Datini engaged in the slave trade indicates that a slave was considered a good investment.

As was suggested above, the largest single group of sources concerning medieval slavery consists of legal records. This is the reason why certain sections of the book give more information about the law of slavery than about slavery as an economic institution. Yet this material is valuable, not only to students of medieval thought, but also to those who are investigating slavery in Latin America and the United States. The first slave codes in the New World were based on the medieval legislation of Spain and Portugal, and these codes in turn influenced those of the English colonies. There is a remarkable resemblance between some of the laws of medieval Majorca and the restrictive legislation of our Southern states just before the Civil War. And since some of the basic ideas of legislation dealing with slaves go back to the Roman Empire, we have unbroken continuity for nearly two thousand years. There are few other institutions of which this can be said.

JOSEPH R. STRAYER, *Princeton University*

Il Comasco sotto il dominio spagnolo; saggio di storia economica e sociale. By Bruno Caizzi. (Raccolta di saggi e ricerche diretta da Gianfranco Miglio, I.) Como: Centro Lariano per gli Studi Economici, 1955. Pp. 227. L. 2,000.

Dr. Bruno Caizzi gained the grateful attention of students of Italian social and economic history by the publication in 1950 of a brilliant anthology on the "Southern Question," which served the highly "educational" purpose of acquainting the younger post-Fascist generation in Italy with the unembellished truth concerning that tremendous problem. In 1952 he published a work on the "historical vicissitudes" of silk weaving in the province of Como. Now, with this study of the economic and social development of the Comasco under Spanish rule, he has made a new contribution, of solid substance and methodological value, to the contemporary Italian historical renascence. Though neither literary nor pedagogical pretensions can be discerned in Caizzi's well-documented study, one may note that it deals with that region of the north whose beauty has been made near fabulous by Nature herself, and with a period whose historical reality has been given half-mythical substance in the Italian cultural imagination by the unique Manzonian work of art. One cannot help wondering whether the 510 printed copies of this typographically beautiful and rich monograph, issued under the auspices of the Centro Lariano per gli Studi Economici, will really suffice for the actual and potential ends they undoubtedly can serve.

This is a labor of professional and personal love, as Caizzi himself candidly avows (p. 8). But there is apparently no illusion, in Caizzi's judgment, as to the place and function of such works as this. His consciousness of the dilemma

faced by the modern economic, and general, historian is quite lively. His reference to Edmond Faral's dictum, recently echoed by Fernand Braudel, "C'est la peur de la grande histoire qui a tué la grande histoire," has its counterpart in the not uncommon suspicion that the monograph may sometimes miss the historical forest for the statistical trees. Perhaps comprehensible history —there is unfortunately too much that is otherwise—lies where the macroscopic and the microscopic meet, but it is often, alas, impossible to see the sign that marks the spot. When, however, as in Caizzi's study, a restricted geoeconomic area is carefully and intelligently analyzed through an extensive time span, a sort of constructive historical balance may be struck. If enough such balanced studies were available, the grand synthesis would no longer arouse misgivings. A dissection of the economic life and through it of the social structure of the Comasco through a century and a half of Spanish rule offers illuminating results both technical and historical.

So much historical heat has been expended for so long with so little light on the era of Spanish predominance in Italy that the impatient scholar may understandably be tempted to wish for a *tabula rasa*—which, of course, is as undesirable as it would be absurd. A comparison, for instance, between the bibliography of printed works in Caizzi's book (pp. 11–13), the abbreviated titles most frequently cited (p. 15), and the actual notes on the chapters (pp. 203–16) shows at a glance the relative use made of published works. Of these, Rovelli's *History of Como* (1803) understandably recurs most frequently in the notes, with Pugliese's pioneering study on the *Economic and Financial Conditions of Lombardy* . . . (1924) holding first place among the more general studies. The bulk of the references, however, are to a variety of archival materials: tax rolls, records of ordinary and special inquests, official plaints and requests, cadastral records, episcopal and parish registers, and family account books such as those of the powerful Perlasca. It is chiefly upon these fresh and hitherto unexploited sources that the analysis is based. Yet more than once Dr. Caizzi intimates regret that there was so little to utilize—in contrast to the documentation available for recent researches on strictly statistical and technical lines—for the administrative and institutional structures. Undoubtedly, an objective assessment of the institutional and administrative factors in the economic and social structure of a marginal region—the Comasco—within a peripheral area—Lombardy—of the Spanish Empire (itself a sort of incarnation of the administrative mind) would have thrown more light on such "neofeudalistic" phenomena as Dr. Caizzi suggests in his description of the lower Comasco (Chapter 4, particularly pp. 130–40, *passim*).

Dr. Caizzi's "essay," formally divided into seven solid and interrelated chapters, focuses attention upon three basic issues: the Spanish, regional, and local fiscal systems; the economic problems of the principal social classes; and the demographic vicissitudes of the Comasco. Fiscalism and demography are utilized respectively as the initial and the terminal points of reference for the wider analysis of economic and social developments. The causal relationship may be ferreted out of the presentation of these elements, but it is not, as of old, automatically proffered. A burdensome and relatively unchanging tax system did not alone "cause" economic decline that generated a social malaise expressing itself

in a falling birth rate! Dr. Caizzi is not entrapped by his sources, though these tend to weigh preponderantly in favor of a fiscal interpretation of the history of this period.

A system of taxation such as that of the Spanish period might perhaps have been justifiable from the global-imperial point of view. But the Comasco knew it only through its ubiquitousness, intricacies, and futility. It seemed little short of an unofficially permanent and punitive form of exploitation imposed unequally upon rich and poor, income and property, town and country. It was bound, as it did, to take its toll upon a region like the Comasco, which was far from fertile in its natural, technical, and human resources. As these resources tended to diminish—certainly not suddenly, not catastrophically, and not irremediably until well into the first quarter of the seventeenth century—no effort was made to assess the reasons behind the decline; on the contrary, those measures were unconsciously adopted that were best calculated to exhaust surviving energies. The vicious circle of fiscalism, behind which lurked continuous war, frightful deficiencies, and political myopia, inexorably contracted into the near exhaustion of both "victim" and "agent." Many interrelated examples of this phenomenon are offered by Caizzi, but a brief reference must here suffice to illustrate a crucial problem.

Throughout the sixteenth century, as has been indicated, there existed unofficially a sort of inequality before the tax assessor and the collector. What this meant in practice need not be elaborated here. One of its long-range consequences proved inescapable: commercial, industrial, and artisan activity was slowly but irreparably taxed out of existence. The "return to the land" became a necessity in the Comasco. A new fiscal logic was unavoidable. The "estimo" of 1609, activated in 1615, amounted to "un grande catasto fondiario" (p. 61), revealing that a vast landed patrimony had passed into the hands of members of the urban upper classes and of the Church. This radical transformation obviously called for a radical reappraisal of the true tax resources of the region. The official "estimo" however, in its application for fiscal purposes, was transformed into a compromise of a compromise. The new taxation came to fall upon secular property alone, and even there all kinds of exemptions and evasions were tolerated. Undifferentiated ecclesiastical property, which had meanwhile become large again in extent and value (p. 68), was almost totally exempted. Thus it was—though Caizzi does not labor the point—that by 1630, when manufacturing and commercial activity was truly extinct in Como (p. 70), a special brand of neofeudality seemed to be emerging from the involutions of fiscality. If, as Caizzi points out (p. 66), possession of land never became uneconomic, it was apparently because tax evasions, administrative weakness, and institutional legalism insured some margin of profit. This was hardly the way to maintain and increase the power of the state in post-Machiavellian Italy! Be that as it may, the upper-middle classes, like the lower-middle, disappeared as such, and only a handful of fortunate members succeeded in transforming themselves into a powerful new class of landed proprietors.

For the artisan classes of Como and the lesser urban centers, for the rural classes of the Plains, and for the pathetic peasants of the Hills, life during the seventeenth century became a cruel struggle between survival and utter pauper-

ization. The "immobility of rural life" throughout this period (p. 130) assumes an almost ominous significance when seen against the vicissitudes of small rural property and the peasant classes, as described in the two central chapters (4 and 5) of Caizzi's work. While armies fought their endless, absurd, and insatiable wars, friend and foe alike devoured the last penny left after payment of rent and fees and taxes. For the worst "villain" of the chronicle of calamities in the Comasco is not Spain in the abstract nor the landlord nor the Church, but that collective "Don Rodrigo" represented by the anonymous *soldatesca,* worse than hail, taxes, and perhaps the plague itself put together. Ultimately, after 1630, all these together, plus the insufficient dimensions of agrarian properties, the rarity of crop rotation, the burdensome rents, the dearth of implements and of farm animals, the various and heavy duties and taxes, and the leechlike debts, spelled almost irretrievable ruin for the peasantry. Accurately but compassionately Caizzi rises above the bare facts and statistics to write passages of great historical and human truth: "Through the span of two centuries we have not come across the exceptional season marked by misfortunes that overwhelm but fade away; we have, on the contrary, encountered a slow erosion, an alternation of small and great reverses, which end by becoming the recurring rule. Every blow leaves a trace because the social structure does not have latent energies nor powers of recovery. . . . Life is thus exhausted by short stages and the resignation of fatalism takes hold of the peasant's spirit . . ." (pp. 133–34; also variations on the same theme on pp. 138, 155). Not a few, particularly those from the towns and mountain regions, refused to fall prey to this fatalism and sought an escape through emigration, especially southward or across the Alps (pp. 165–69). By their escape they performed both an act of defiance against cruel economic conditions and of constructive solidarity with the less fortunate and the less strong whom they left behind in their poor and beloved villages on the beautiful but ungenerous shores of Lake Como.

With such works as Dr. Caizzi's "essay" as guides and resources, it is not too much to hope that the doors into the vaster realms of "la grande histoire" may be opened again without fear. Certainly, for the moment, it is not too much to say that only such works as this will succeed in rescuing the era of Spanish domination in Italy from the historical limbo to which it has been too long condemned by those who insist in seeing nothing but a gaping void between the waning of the Renaissance and the dawn of the Risorgimento.

A. William Salomone, *New York University*

Knowledge Is Power. The Life Story of Percy Hampton Johnston, Banker. By Frank Wilson Nye. New York: Random House, 1956. Pp. xxxvi, 347. $5.00.

It does not take more than a page or two of this informal biography for the reader to know that it is an inside job, written from firsthand visits with Mr. Johnston, his family, and business associates with whom the banker worked closely for nearly a half century. It is a success story of a banker who stood in the front ranks of American banking of this century, and Mr. Nye addresses himself to the task of recording the Horatio Alger-like qualities of his hero with little in the way of restraint. One looks long and hard to find a sour note in this

biography of triumphs, if only for sheer relief. But it is not to be found in the Nye account. According to the author, he was unable to discover a single major mistake that the banker had made, in a career that witnessed panic and depression, two world wars, and the greatest stock market crash in the history of the United States. Perhaps so. Mistakes are seldom written up in success stories.

Percy Hampton Johnston became a banker at sixteen, as a $10-a-month runner for the Marion National Bank of Lebanon, Ky. At twenty-six, he was a National Bank Examiner. At thirty-three, he was elected cashier of the Citizens National Bank of Louisville. At thirty-seven, he entered the venerable Chemical National Bank of New York as first vice-president. Three years later, he was "Old Bullion's" president. When he retired as chairman of its board in 1946, the Chemical was the sixth largest bank in the country, a long climb from 136th place it held in 1917, the year that the young Kentucky banker went East.

To this improvement, Percy Hampton Johnston undoubtedly contributed more than any other member of his banking family. With push and energy, he pioneered new trends in banking, new for the Chemical, that is. He introduced better business-building techniques, improved bank advertising, established a profitable trust department, increased the share of Chemical's business overseas, and so forth. A great deal of what Johnston did for his bank was new in the twenties, but this sort of theme can be overworked by biographers of businessmen. This is signally true of Johnston's use of advisory boards for his branches, a device that was known to the branch banker long before Mr. Johnston adopted it. Almost without exception, the author has turned in a glowing account of various innovations, but it is unfortunate that he never goes more than an inch below the surface.

In the banking world as a whole, Johnston cast a long shadow. From the roles he held in various banking associations, he undoubtedly contributed much to the lore and practice of banking in the United States. But, here again, the author only scratches the surface. He provides the reader with scraps of information—for the most part, testimonials from associates and speeches. The result is too often sketchy. To put it as simply as possible, the details the reader would like at hand are not to be found.

The anatomy of success is a complex and difficult affair to dissect. The method Mr. Nye employed to develop this biography is nothing new. For years others have fashioned works of this kind from interviews, press clippings, company publications, and the like. There is no denying that some writers have managed to turn in a convincing account. But more often, it is not. In assessing *Knowledge Is Power,* I felt Mr. Nye had drawn too heavily upon such sources of information. He has worked them to death.

A. E. Haase, *San Francisco, California*

The Expansion of Elizabethan England. By A. L. Rowse. New York: St. Martin's Press, 1955. Pp. xiii, 450. 27 plates. $5.75.

Elizabethan Copper: The History of the Company of Mines Royal, 1568–1605. By M. B. Donald. London: Pergamon Press, 1955. Pp. 405. 9 plates. £3.

The Third Book of Remembrance of Southampton, 1514–1602: Vol. II, 1540–73. Edited by A. L. Merson. Southampton: at the University, 1955. Pp. xvi, 200. 2 plates. 25*s*.

New work on sixteenth century economic development comes out slowly. Mr. Rowse made good use of recently turned-up detail in the first of his volumes on Elizabethan England. In this, the second, he plays economic detail down in favor of action and adventure, a splendidly told story. Granting the dependence of colonial enterprise on the availability of trading profits and of income from great estates, he nevertheless interprets the expansion as springing from the initiative of a few farsighted leaders. These men were not primarily interested in trade, but, as Gilbert's purpose is summed up, in "the transplanting and reproduction of English society on American soil, territorial wealth and power for its promoters." Quinn's emphasis on the importance of Irish experience is well stressed.

Mr. Donald's history of the Mines Royal, on the contrary, is crammed with detail from letters, accounts, and state papers relating to the business of developing Cumberland copper resources. There is also personal and genealogical detail of interest regarding the two original patentees in the business and twenty-eight shareholders of the company. No less than eight of these were London mercers. The author, Ramsay Memorial Professor of Chemical Engineering in the University of London, was dismayed to find the Elizabethans so far behind their German contemporaries in metallurgy, so dependent on German workers and technicians, and so slow to realize the importance of training their own men. He believes that costs of production were greatly increased by the hindrances and hostility that Cumberland people offered to what was in effect a little German colony at Keswick. The landed interest, however, would have resisted in any case the threat to the timber supply offered by the smelting process, and there could be no quick conversion to coal owing to special smelting problems that took time to solve. Finally, the company was hampered in finding sales outlets. Export to enemy countries was banned; profitable use in manufacture was at first obstructed by the monopoly of the rival company in that field; and in the armaments field the government stood as virtually a monopsonist. Thomas Smythe, as lessee of the mines in the 1580's, contrived for a few years to reduce costs and make a profit, but in the face of variations in the quality of the ore, accidental losses of fuel, and difficulties in maintaining the labor force, production soon declined. Nor did resumption of management by the company improve matters.

It is to be hoped that Mr. Donald will publish further material that has come into his hands regarding the role of the Hochstetter family in these affairs.

The latest volume of Southampton records to be published refers more to strictly municipal business than to trade or new industry. The municipal ordinances entered here are concerned as much with defense and morals as with rents and prices. Those concerned with price control contain evidence as to seasonal variations in the price of meat, and year-to-year variations in the price of tallow. The only sign of "expansion" relates to the export of beer to the Channel Islands.

Sylvia L. Thrupp, *University of Chicago*

Recent Publications in Economic History

Compiled by JOSEPH P. RUFFIER

Alyea, Paul E., and Blanche R. Alyea. *Fairhope, 1894–1954: The Story of a Single Tax Colony.* University: University of Alabama Press, 1956. Pp. 352. $4.50.

Arnot, R. Page. *A History of the Scottish Miners from the Earliest Times.* London: Allen & Unwin, 1955. Pp. 445. 30*s.*

Bastin, John. *Raffles' Ideas on the Land Rent System in Java and the Mackenzie Land Tenure Commission.* The Hague: Nijhoff, 1954. Pp. 193. Fl. 14.

Beik, Paul H. *The French Revolution Seen from the Right: Social Theories in Motion, 1789–1799,* Transactions of the American Philosophical Society, New Series, Vol. 46, Pt. 1. Philadelphia: American Philosophical Society, 1956. Pp. 122. $2.00.

Björk, L. *Les conditions de travail dans l'entreprise soviétique.* Translated from the Swedish. Paris: Editions de l'Entreprise Moderne, 1955. Pp. 168. 690 fr.

Bondas, Joseph. *Histoire anecdotique du mouvement ouvrier au pays de Liége.* 2nd ed. Liége: Editions Syndicales, 1956. Pp. 399. Fr. Belge 65.

Bouvier-Ajam, Maurice. *L'Economie française au milieu du XX^e siècle.* Paris: Librairie Générale de Droit et de Jurisprudence, 1955. Pp. 186. 680 fr.

Bramsnæs, C. V. *Finanslov og finansstyre, 1894–1949.* Copenhagen: J. H. Schultz, 1955. Pp. 200.

Brown, Hilton. *Parry's of Madras: A Story of British Enterprise in India.* Madras: Published privately by Parry, 1955. Pp. 347.

Brown, Robert E. *Middle-Class Democracy and the Revolution in Massachusetts, 1691–1780,* American Historical Association, Albert J. Beveridge Memorial Fund publication. Ithaca: Cornell University Press, 1955. Pp. 458. $6.00.

Chabert, Alexandre. *Les salaires dans l'industrie française (la métallurgie).* Paris: A. Colin, 1955. Pp. 255. 1,000 fr.

Chambon, Raymond. *L'histoire de la verrerie en Belgique du XI^me siècle à nos jours.* Brussels: Librairie Encyclopédique, 1955. Pp. 331.

Christie, Robert A. *Empire in Wood: A History of the Carpenters' Union,* Cornell Studies in Industrial and Labor Relations, Vol. 7. Ithaca: Cornell University, 1956. Pp. 356. $5.50.

Clark, James I. *Wisconsin Agriculture: The Rise of the Dairy Cow.* Madison: State Historical Society of Wisconsin, 1956. Pp. 20.

Combe, Paul. *Niveau de vie et progrès technique en France (1860–1939): contribution à l'étude de l'économie française contemporaine. Postface (1939–1949).* Préface de Jean Fourastie. Paris: Presses Universitaires de France, 1956. Pp. 618. 1,995 fr.

Cornu, Auguste. *Karl Marx et Friedrich Engels: leur vie et leurs œuvres.* Vol. 1. Paris: Presses Universitaires de France, 1955. Pp. 314. 900 fr.

Coulborn, Rushton, Editor. *Feudalism in History.* Princeton: Princeton University Press, 1956. Pp. 438. $8.50.

Dain, Floyd R. *Every House a Frontier: Detroit's Economic Progress, 1815–1825.* Detroit: Wayne University Press, 1956. Pp. 168. $3.50.

Davies, Margaret G. *The Enforcement of English Apprenticeship: A Study in Applied Mercantilism, 1563–1642,* Harvard Economic Studies, Vol. 97. Cambridge: Harvard University Press, 1956. Pp. 319. $6.00.

Deane, Phyllis, Editor. *Bibliography on Income and Wealth.* Vol. 5, 1952. London: Bowes & Bowes, 1955. Pp. 80. 37*s.*6*d.*

De Rosa, Luigi. *I cambi esteri del regno di Napoli dal 1591 al 1707.* Naples: Banco di Napoli, 1955. Pp. 435. L. 5,000.

Dike, K. Onwuka. *Trade and Politics in the Niger Delta, 1830–1885: An Introduction to the Economic and Political History of Nigeria.* Oxford: Clarendon Press, 1956. Pp. 250. 30*s.*

Dolléans, Edouard, and G. Dehove. *Histoire du travail en France.* Tome II: *De 1919 à nos jours.* Paris: Domat-Montchrestien, 1955. Pp. 512. 1,600 fr.

Evans, Joan. *The Endless Web: John Dickinson and Co. Ltd., 1804–1954.* London: Cape, 1955. Pp. 274. 32*s.*6*d.*

Fay, C. R. *Adam Smith and the Scotland of His Day,* Social and Economic Studies, Vol. 3. New York: Cambridge University Press, 1956. Pp. 173. $4.75.

Fellner, William J. *Trends and Cycles in Economic Activity: An Introduction to Problems of Economic Growth.* New York: Holt, 1956. Pp. 411. $5.00.

Ferré, Max. *Histoire du mouvement syndicaliste révolutionnaire chez les instituteurs, des origines à 1922.* Paris: Société Universitaire d'Editions et de Librairie, 1955. Pp. 335.

Fine, Sidney. *Laissez faire and the General-Welfare State: A Study of Conflict in American Thought, 1865–1901,* University of Michigan Publications, History and Political Science, Vol. 22. Ann Arbor: University of Michigan Press, 1956. Pp. 478. $7.50.

Fohlen, C. *L'industrie textile au temps du Second Empire.* Paris: Plon, 1956. Pp. 250. 1,500 fr.

Foner, Philip S. *History of the Labor Movement in the United States.* Vol. 2: *From the Founding of the American Federation of Labor to the Emergence of American Imperialism.* New York: International Publishers, 1956. Pp. 480. $5.00.

Freyre, Gilberto. *The Masters and the Slaves: A Study in the Development of Brazilian Civilization.* Second revised edition. New York: Knopf, 1956. Pp. 537. $8.50.

Frisch, Ragnar, and others. *Income and Wealth, Series IV.* International Association for Research in Income and Wealth. London: Bowes & Bowes, 1955. Pp. 400. 42*s.*

Gaettens, Richard. *Inflationen: das Drama der Geldentwertungen vom Altertum bis zur Gegenwart.* Munich: R. Pflaum, 1955. Pp. 324.

Gilman, Glenn. *Human Relations in the Industrial Southeast: A Study of the Textile Industry.* Chapel Hill: University of North Carolina Press, 1956. Pp. 339. $5.00.

Godinho, Vitorino Magalhães. *Prix et monnaies au Portugal, 1750–1850.* Paris: A. Colin, 1955. Pp. 369. 1,400 fr.

Grass, Milton N. *History of Hosiery, from the Piloi of Ancient Greece to the Nylons of Modern America.* New York: Fairchild Publications, 1956. Pp. 283. $5.75.

Grünig, Ferdinand, and Rolf Krengel. *Die Expansion der westdeutschen Industrie 1948 bis 1954.* Berlin: Duncker & Humblot, 1955. Pp. 96. DM. 12.60.

Hamberg, Daniel. *Economic Growth and Instability: A Study in the Problem of Capital Accumulation, Employment, and the Business Cycle.* New York: Norton, 1956. Pp. 340. $4.00.

Heidacher, Alfred. *Die Entstehungs- und Wirtschaftsgeschichte des Klosters Heilsbronn bis zum Ende des 15. Jahrhunderts.* Bonn: Rohrscheid, 1955. Pp. 254. DM. 17.

Herndon, Booton. *Bergdorf's on the Plaza: The Story of Bergdorf Goodman and a Half-Century of American Fashion.* New York: Knopf, 1956. Pp. 244. $4.50.

Hohman, Elmo P. *History of American Merchant Seamen.* Hamden, Conn.: Shoe String Press, 1956. Pp. 125. $3.50.

Hume, David. *Writings on Economics.* Edited and introduced by Eugene Rotwein. Madison: University of Wisconsin Press, 1955. Pp. 224. $4.50.

Jantke, Carl. *Der vierte Stand: die gestaltenden Kräfte der deutschen Arbeiterbewegung im 19. Jahrhundert.* Freiburg: Herder, 1955. Pp. 237. DM. 14.80.

Johnson, Arthur M. *The Development of American Petroleum Pipelines: A Study in Private Enterprise and Public Policy, 1862–1906.* Ithaca: Published for the American Historical Association by Cornell University Press, 1956. Pp. 307. $4.50.

Kerschagl, Richard. *John Law: die Erfindung der modernen Banknote.* Vienna: Verlag des Notringes der wissenschaftlichen Verbände Österreichs, 1956. Pp. 143.

Knight, Frank H. *On the History and Method of Economics: Selected Essays.* Chicago: University of Chicago Press, 1956. Pp. 308. $6.00.

Koontz, Harold D., and Richard W. Gable. *Public Control of Economic Enterprise.* New York: McGraw-Hill, 1956. Pp. 851. $7.00.

Kosminsky, Evgeny A. *Studies in the Agrarian History of England in the Thirteenth Century,* Studies in Mediaeval History, No. 8. Translated from the Russian by Ruth Kisch, edited by R. H. Hilton. Oxford: Blackwell, 1956. Pp. 370. 37*s.*6*d.*

Kuznets, Simon, Editor. *Income and Wealth,* Series 5, International Association for Research in Income and Wealth. London: Bowes & Bowes, 1955. Pp. 242. 42*s.*

Lee, Norman E. *Travel and Transport through the Ages.* Second revised edition. Cambridge: University Press, 1955. Pp. 187. 12*s.*6*d.*

Lydall, H. F. *British Incomes and Savings,* Oxford University Institute of Statistics, Monograph No. 5. Oxford: Blackwell, 1955. Pp. 290. 32*s.*6*d.*

McGrath, Patrick, Editor. *Merchants and Merchandise in Seventeenth-Century Bristol,* Bristol Record Society's Publications, Vol. 19. Bristol: Printed for the Bristol Record Society, 1955. Pp. 315.

McMurry, Donald Le Crone. *The Great Burlington Strike of 1888: A Case History in Labor Relations,* Studies in Economic History. Cambridge: Harvard University Press, 1956. Pp. 377. $6.00.

Manuel, Frank E. *The New World of Henri Saint-Simon.* Cambridge: Harvard University Press, 1956. Pp. 433. $7.50.

Marburg, Theodore F. *Small Business in Brass Fabricating: The Smith & Griggs Manufacturing Co. of Waterbury,* Business History Series. New York: New York University Press, 1956. Pp. 116. $5.00.

Meade, James E. *The Belgium-Luxembourg Economic Union, 1921–1939: Lessons from an Early Experiment,* Essays in International Finance, No. 25. Princeton: Department of Economics and Sociology, International Finance Section, Princeton University, 1956. Pp. 41.

Mueller, I. W. *John Stuart Mill and French Thought.* Urbana: University of Illinois Press, 1956. Pp. 275. $4.00.

Nevin, Edward. *The Mechanism of Cheap Money: A Study of British Monetary Policy, 1931–1939.* Cardiff: University of Wales Press, 1955. Pp. 350. 25*s.*

Palmer, Gladys L. *Philadelphia Workers in a Changing Economy,* Wharton School of Finance and Commerce, Industrial Research Department, Research Studies, 38. Philadelphia: University of Pennsylvania Press, 1956. Pp. 189. $6.00.

Passet, René. *L'industrie dans la généralité de Bordeaux sous l'intendant Tourny: contribution à l'étude de la décadence du système corporatif au milieu du XVIII^e siècle,* Collection de l'Institut d'Economie Régionale du Sud-Ouest, 2. Bordeaux: Editions Bière, 1954. Pp. 169.

Peck, Henry A. *Seaports in Maine: An Economic Study,* University of Maine Studies, 2nd series, No. 70. Orono, Me.: Printed at the University Press, 1955. Pp. 70. $.50.

Piettre, André. *Les trois âges de l'économie: essais sur les relations de l'économie et de la civilisation de l'antiquité classique à nos jours.* Paris: Editions Ouvrières, 1955. Pp. 431. 1,050 fr.

Posthuma, J. F., and others. *Tien Jaar Economisch Leven in Nederland: Herstelbank 1945–1955.* The Hague: Nijhoff, 1955. Pp. 332.

Powell, Horace B. *The Original Has This Signature—W. K. Kellogg.* Englewood Cliffs, N.J.: Prentice-Hall, 1956. Pp. 358. $5.00.

Powell, J. Richard. *The Mexican Petroleum Industry, 1938–1950.* Berkeley: University of California Press, 1956. Pp. 269. $4.00.

Rice, Margaret S. *Sun on the River: The Story of the Bailey Family Business, 1856–1956.* Concord, N.H.: Privately printed at the Rumford Press, 1955. Pp. 146.

Roberts, Benjamin C. *Trade Union Government and Administration in Great Britain.* London: Published by Bell for the London School of Economics, 1956. Pp. 570. 31*s.*6*d.*

Roepke, Howard G. *Movements of the British Iron and Steel Industry, 1720 to 1951,* Illinois Studies in the Social Sciences, Vol. 36. Urbana: University of Illinois Press, 1956. Pp. 198. $3.00.

Rubel, Maximilien. *Bibliographie des œuvres de Karl Marx, avec en appendice un répertoire des œuvres de Friedrich Engels.* Paris: Librairie Marcel Rivière, 1956. Pp. 276. 1,800 fr.

Salzman, Louis F., Editor. *Ministers' Accounts of the Manor of Petworth, 1347–1353,* Sussex Record Society, Publications, Vol. 55. Lewes: Sussex Record Society, 1955. Pp. 100.

Schurmann, Herbert F. *Economic Structure of the Yuan Dynasty: Translation of Chapters 93 and 94 of the Yuan Shih,* Harvard Yenching Institute Studies, XVI. Cambridge: Harvard University Press, 1956. Pp. 251. $3.50.

Sennholz, Mary, Editor. *On Freedom and Free Enterprise: Essays in Honor of Ludwig von Mises.* Princeton: Van Nostrand, 1956. Pp. 333. $3.50.

Sheridan, Richard. *An Economic History, 1500–1900,* Economic Development in South Central Kansas, Part Ia. Lawrence: Bureau of Business Research, University of Kansas, 1956. Pp. 287.

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Spengler, Joseph J. *Economie et population: les doctrines françaises avant 1800; de Budé à Condorcet.* En appendice, une étude d'Alfred Sauvy sur quelques démographes ignorés du XVIII[e] siècle. (Translation of *French Predecessors of Malthus*). Paris: Presses Universitaires de France, 1954. Pp. 389. 900 fr.

Stadelmann, Rudolf, and Wolfram Fischer. *Die Bildungswelt des deutschen Handwerkers um 1800: Studien zur Soziologie des Kleinbürgers im Zeitalter Goethes.* Berlin: Duncker & Humblot, 1955. Pp. 258. DM. 16.

Thomazi, Auguste A. *Les flottes de l'or: histoire des galions d'Espagne.* New edition. Paris: Payot, 1956. Pp. 229.

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Vatter, H. G. *Small Enterprise and Oligopoly: A Study of the Butter, Flour, Automobile, and Glass Container Industries,* Studies in Economics, No. 4. Corvallis: Oregon State College, 1955. Pp. 116. $1.00.

Vaughan, Floyd L. *The United States Patent System: Legal and Economic Conflicts in American Patent History.* Norman: University of Oklahoma Press, 1956. Pp. 355. $8.50.

Vávra, Jaroslav R. *5000 Years of Glass-Making: The History of Glass.* Translated by I. R. Gottheiner. Prague: Artia, 1954. Pp. 191. 84*s.*

Vester, Horatio, and Anthony H. Gardner. *Trade Unions and the Law.* London: Methuen, 1955. Pp. 128. 7*s.*6*d.*

Walton, Francis. *Miracle of World War II: How American Industry Made Victory Possible.* New York: Macmillan, 1956. Pp. 575. $7.50.

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Wood-Legh, K. L., Editor. *A Small Household of the Fifteenth Century: Being the Account Book of Munden's Chantry, Bridport.* Manchester: Manchester University Press, 1956. Pp. 90. 18*s.*

Woytinsky, W. S., and E. S. Woytinsky. *World Commerce and Governments: Trends and Outlook.* New York: Twentieth Century Fund, 1955. Pp. 907. $10.00.

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